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COMMONS, COGNITION, AND CLIMATE CHANGE

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I. INTRODUCTION

Climate disruption has become big news. Throughout the world, human activities in all nations pour greenhouse gases (GHGs) into the atmosphere, in spite of the potentially disastrous direct impact on climate and the indirect impacts on all kinds of resources, from fish and corals to birds to flowers to growing crops. Can we stop ourselves? Can our national governments and international agreements stop us? Perhaps, and the series of international conferences on climate change argue powerfully that many scientists, organizations, and national leaders believe we should.

Nevertheless, we have seen conference after conference on climate change, raising hopes and then dashing them repeatedly. The Paris Climate Change Conference in December 2015 appeared

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to be more successful than most of its predecessors in achieving accord among the participants. But the agreement reached there is still not expected to achieve the goal of limiting global warming to the stated level—something less than two degrees centigrade above pre-industrial temperatures—even if the participants do what they say they will do.¹

The experience of climate change efforts to date, with results that are at best ambiguous and at worst disappointing, is the setting of this Essay. Commentators agree that the Paris Agreement, momentous though it is, leaves many actions to be taken by the participants—along with many doubts about their willingness or ability to take those actions.

These doubts loom larger in light of the participants' expectations about actions taken or not taken by other participants. This Essay revolves around expectations of that sort. I will discuss the cognitive aspects of commons or collective action problems, of which, of course, climate change is an enormous example. I do not mean to argue that cognition is the only obstacle or even the central obstacle to our ability to address climate disruption, or that if people simply changed their minds all would be well. Far from it; there are enormous technical and economic hurdles to dealing with this globally threatening phenomenon. Nor do I even plan to discuss all the cognitive impediments to understanding climate disruption. Several scholars have taken an interest in this topic, taking several different directions. Jeffrey Rachlinski and Barton Thompson have both analyzed climate problems in the light of "heuristics" of ordinary cognition—such as the ways that people perceive uncertainty, or their special aversion to losses—concluding that the ordinary ways of "thinking fast" present major impediments for our ability to come to grips with climate change.² Other scholars, grounding their arguments in the contributions of Dan Kahneman and his co-authors, have discussed attitudes to climate change in light of what has come to be called "cultural cognition"—the likelihood that people will perceive issues in the ways that their respective political or cultural

1. Gautam Naik, *Scientists Hail Climate Pact as Key Step in Fight Against Warming*, WALL ST. J. (Dec. 13, 2015), <https://www.wsj.com/articles/scientists-hail-climate-pact-as-key-step-in-fight-against-warming-1450028078>.

2. See Barton H. Thompson, Jr., *Tragically Difficult: The Obstacles to Governing the Commons*, 30 ENVTL. L. 241 (2000) (discussing fisheries and groundwater in addition to climate change); Jeffrey J. Rachlinski, *The Psychology of Global Climate Change*, 2000 U. ILL. L. REV. 299 (2000). For heuristics in cognitive psychology, see DANIEL KAHNEMAN, THINKING FAST AND SLOW (2011).

reference groups perceive them, whatever the evidence.³ Still others, notably Gary Libecap, have concentrated on the influence of distributive questions on people's ability to cope with evidence of climate change.⁴

While these scholars very interestingly describe cognitive issues in connection with the great commons of climate change, and while I will refer to some of their observations, this Essay takes a somewhat different approach. I will focus on a narrower but very basic set of cognitive impediments in commons situations: distrust, ignorance and insouciance. I focus on these because they are generated by the very structure of the commons or collective action settings. These impediments are in a sense prior to cognitive issues of "thinking [too] fast" about the evidence, or perceiving climate information according to one's cultural or political reference group, or letting one's perceptions be swayed by distributive issues. Instead, these impediments can stop people from even getting to any evidence about commons problems, or can cause despair at the very outset about arriving at any solution.

It is quite widely agreed that climate disruption has the characteristics of a commons or collective active problem,⁵ and for that reason, Part II of this Essay will discuss the point, but only briefly. In Part III, I will follow with a somewhat more extensive argument that collective action or commons situations inherently produce the three cognitive problems mentioned above—distrust, ignorance and insouciance—for those who might try to address these problems. In this Part, I will concentrate most extensively on the factor of distrust, not because it is logically prior to ignorance and insouciance, but because it most clearly illustrates how commons situations generate cognitive impediments to their own solution.

3. See Dan M. Kahan, *Foreword: Neutral Principles, Motivated Cognition, and Some Problems for Constitutional Law*, 125 HARV. L. REV. 1, 19-21, 23-24 (2011) (importance of reference groups in cognition); see also, e.g., Dan M. Kahan & Donald Braman, *Cultural Cognition and Public Policy*, 24 YALE L. & POL'Y REV. 149, 151 (2006) (linking beliefs about global warming to other cultural beliefs); Hari M. Osofsky & Jacqueline Peel, *Energy Partisanship*, 65 EMORY L. J. 695, 702 (2016) (extensive development of this approach to action on climate change); Robert R.M. Verchick, *Culture, Cognition, and Climate*, 2016 U. ILL. L. REV. 969, 975 (2016) (same).

4. Gary D. Libecap, *Open-Access Losses and Delay in the Assignment of Property Rights*, 50 ARIZ. L. REV. 379, 406-07 (2008).

5. See, e.g., Cinnamon Carlarne, *Delinking International Environmental Law & Climate Change*, 4 MICH. J. ENVTL. & ADMIN. L. 1, 39-40 (2014) and sources cited therein; Thomas M. Gremillion, *Setting the Foundation: Climate Change Adaptation at the Local Level*, 41 ENVTL. L. 1221, 1230 (2011); cf. Kirsten H. Engel & Scott R. Saleska, *Subglobal Regulation of the Global Commons: The Case of Climate Change*, 32 ECOLOGY L. Q. 183, 190-94 (2005) (recognizing the collective action character of climate change but arguing that unilateral subglobal action is not necessarily irrational and may be positive).

In Part IV, without attempting to be exhaustive, I try to identify some factors that might alleviate distrust, ignorance and insouciance in the context of climate-related collective action. Those factors I identify as motivated belief, commitment, and what I call a factor of interestingness and fun, all of which to some degree counteract distrust, ignorance and insouciance in commons situations. Nevertheless, climate disruption presents a commons or collective action problem that is so vast that these countervailing factors are likely to be overwhelmed. Thus, in Part V and again without attempting to be exhaustive, I will turn to some measures that might alleviate these structural cognitive issues through shrinking the scale of the collective action problems themselves, and through turning to actions on a smaller or even individual scale. In this Part, I will take up the topics of adaptation, geoengineering, and efforts to appeal to market-based decision-making. I will conclude with the observation that market-oriented actions may be the most promising of these three, though certainly not without their own problems.

II. COMMONS AND CLIMATE

I have long been interested in issues involving management of commons, or as Elinor Ostrom and her followers have called them, common pool resources.⁶ From the common pool perspective, the loading of GHGs into our atmosphere has a very familiar look, and a very familiar name: the Tragedy of the Commons.⁷

This sobriquet was created by biologist Garrett Hardin in 1968, and in his well-known explanation of the Tragedy, he used the example of a herder's reasoning about a field to which any and all herders have access while none have the right or ability to exclude others.⁸ According to Hardin, such a herder would realize that there would be no point in holding back from grazing on the one hand, or investing in regenerating the field on the other; he or she would consider that the other herders would simply free ride on any such measures, and that the common field would fare no better in the

6. I have had a longstanding friendly argument with Ostrom and her associates about whether terminology concerning "common pool resources" (Ostrom's preferred usage) should be kept separate from "common property regimes" (a phrase I often use). Ostrom's argument is that common pool resources have certain physical characteristics and should not be mixed with designations of property regimes; my argument has been that no resource is a common pool by nature, but rather that this status depends on the way it is managed (if at all), and that common property regimes are one form of management. For Ostrom's view, see, for example, NAT'L RESEARCH COUNCIL, *THE DRAMA OF THE COMMONS* 3, 14, 17–18 (Elinor Ostrom et al. eds., 2002) [hereinafter *DRAMA OF THE COMMONS*]. I am afraid I have only given my views orally, in mild conference spats with Ostrom and her associates.

7. See Garrett Hardin, *The Tragedy of the Commons*, 162 *SCIENCE* 1243 (1968).

8. *Id.* at 1244–45.

long run.⁹ The upshot would be that all the herders would graze their livestock and none would invest in replenishment, and the grazing field would be degraded or even ruined over the long run. By implication, the same could be said of any other valuable resource to which access goes unrestrained. Thus, Hardin generalized this pattern to many kinds of environmental problems, including pollution.

There have been many critiques of Hardin's account, including Elinor Ostrom's rejection of the designation of "commons" for what is more accurately designated "open access" to a common pool resource.¹⁰ The medieval common fields that Hardin cited actually were far from tragic; these commons-es were not in fact open access resources, and they endured under community management for the better part of a millennium.¹¹ Moreover, the underlying idea of the "tragedy" itself was not new when Hardin wrote; years before his article economists like Scott Gordon had applied what was essentially the same logic to a more realistic resource example, that is, fisheries.¹²

Misnomer or not, however, and original or not, what Hardin dubbed the Tragedy of the Commons has become ordinary usage, and I too will use his trope. But more to the point, many see the Tragedy playing out in a resource that covers the globe: the atmosphere. I turn, then, to some features of collective action that create structural cognitive impediments to solutions as a general matter—but particularly solutions to climate disruption.

III. COLLECTIVE ACTION AND ITS STRUCTURAL COGNITIVE IMPEDIMENTS TO COMMONS SOLUTIONS

My argument is that collective action or commons problems generate cognitive impediments by their very structure and, as mentioned earlier, I am focusing particularly on the cognitive impediments of distrust, ignorance, and insouciance. As a matter of chronology, ignorance should come first, but I begin with the impediment most strongly implied in Hardin's own account: *distrust*.

9. *Id.*

10. ELINOR OSTROM, *GOVERNING THE COMMONS* 222 n.23 (1990) (noting prior scholarship that recognized the distinction). The distinction between common and open access appears regularly in the later work of Ostrom and her colleagues. *See, e.g.*, *DRAMA OF THE COMMONS*, *supra* note 6, at 18.

11. *See, e.g.*, Susan Jane Buck Cox, *No Tragedy of the Commons*, 7 *ENVTL. ETHICS* 49 (1985) (discussing long-lasting medieval commons); Henry E. Smith, *Semicommon Property and Scattering in the Open Fields*, 29 *J. LEGAL STUD.* 131 (2000) (same).

12. *See* H. Scott Gordon, *The Economic Theory of a Common-Property Resource: The Fishery*, 62 *J. POL. ECON.* 124 (1954); *see also* Hakkan Eggert, *The Centenary of Jens Warming's Optimal Landing Tax in Fisheries*, 26 *MARINE RESOURCES ECON.* 107 (2012) (describing a similar idea by Jens Warming, originally written in Danish in 1911 and 1931).

A. Distrust

One of the most easily understood consequences of collective action scenarios is distrust among the interested parties. The logic of the Tragedy the Commons suggests the root of distrust: any given person, or group, or nation, is likely to ask, why should I make an effort when I am reasonably certain that others will not? My forbearance will just cost me, without doing much good in the long run, since others will take what I have tried to preserve. Indeed, a more malevolent take on the question would be, why should I make an effort *even if others do*? The efforts of others might do something to preserve the atmospheric resource, and then I will get to take a bigger portion of what they have saved—that is to say, I can free ride on their actions.¹³

Ultimately, then, no matter whether the other parties cooperate or malingering, the rational role for each person, and each nation too, is to malingering. This is of course the reason why the Tragedy of the Commons can be described in game theory terms as an “n-person Prisoner’s Dilemma” or PD.¹⁴

The PD is of course a very well-known situs in game theory, usually described in terms of two prisoners, each of whom is motivated to “rat” on the other no matter what the other prisoner does. The PD structure also explains that participants in the Tragedy can understand the motives of the others: each understands that the others have the same motivation to rat (or free ride). Ironically, game theorists call this phenomenon “common knowledge”—I know what you know, you know what I know, and we both know that we both know it. In the PD game, as well as in the Tragedy, what we both know is that we are both motivated to cheat or malingering.¹⁵

Common knowledge can sometimes help people to coordinate their actions—when we know that the others are cooperating. But the common knowledge of the PD or Tragedy argues that we are trapped. One should notice that as much as anything else, this is a *cognitive trap*—the trap of distrust. We are stuck in the PD or Tragedy because of our beliefs about others’ beliefs, which lead us to distrust their willingness to take cooperative action. It is not that

13. See William D. Nordhaus, *A New Solution: The Climate Club*, N.Y. REV. BOOKS (June 4, 2015), <http://www.nybooks.com/articles/2015/06/04/new-solution-climate-club/> (identifying the calculus of free riding as a chief impediment to international action on climate change).

14. ROBERT C. ELLICKSON, CAROL M. ROSE & HENRY E. SMITH, *PERSPECTIVES ON PROPERTY LAW 107* (4th ed. 2014).

15. See Peter Vanderschraaf & Giacomo Sillari, *Common Knowledge*, STAN. ENCYCLOPEDIA PHILOSOPHY (July 23, 2013), <https://plato.stanford.edu/entries/common-knowledge/>.

our distrust is irrational; in fact, it is quite rational. In the ordinarily understood version of rationality as rational self-interest, no one would ever cooperate to solve commons problems.

In real life, of course, this lugubrious conclusion is by no means inevitable. The most austere version of rational self-interest has innumerable breaches in practice, and we are lucky that it does. When common knowledge does help people to coordinate their actions, the mutually desolating PD game can turn into a still-risky, but much more productive, “assurance game,” in which the partners advance through mutual assistance—if they can communicate with each other. The possibility of communication is often observed about the Prisoners’ Dilemma itself; if the prisoners can communicate and agree on a story, they may be able to avoid their plight.¹⁶ The same is equally and perhaps more intuitively true of contractual relationships where coordinated agreement to forego cheating at the outset can induce the parties to trust each other, potentially leading to highly beneficial long-term commercial relationships.¹⁷

In conjunction with her critique of Hardin’s story, Elinor Ostrom spent a career showing that people sometimes do arrive at solutions to commons problems, and they do so without the coercion that Hardin thought essential. Her most famous book, *Governing the Commons*, is replete with illustrations of cooperative solutions through which people turn open access resources into productive and fruitful ones that they manage in common. Even before Ostrom’s book, Edna Ullman-Margolit argued that PD scenarios, of which the Tragedy is one, may be predicted to produce cooperative solutions.¹⁸

Something to note, however, is the substantial difference between the ordinary one-on-one PD game and the n-person PD game or commons. The size of the “n” in the n-person situation matters a good deal. All other things being equal, the larger the

16. See, e.g., Robert S. Adler & Elliot M. Silverstein, *When David Meets Goliath: Dealing with Power Differentials in Negotiation*, 5 HARV. NEGOT. L. REV. 1, 68 (2000) (comparing PD communication to communication in negotiations).

17. See Carol M. Rose, *Giving, Trading, Thieving, and Trusting: How and Why Gifts Become Exchanges, and (More Importantly) Vice Versa*, 44 FLA. L. REV. 295, 314–15 (1992) [hereinafter Rose, *Giving, Trading, Thieving, and Trusting*] (describing and critiquing role of “Leviathan” or law in backing up agreements). While legally enforceable instruments like contracts can create a countervailing common knowledge that disrupts PDs and encourages trust, the results are not always socially beneficial; for an especially unfortunate example, see RICHARD R.W. BROOKS & CAROL M. ROSE, *SAVING THE NEIGHBORHOOD: RACIALLY RESTRICTIVE COVENANTS, LAW, AND SOCIAL NORMS* 219–21 (2013) (discussing the role of racial deed restrictions in creating common knowledge that bolstered neighbors in maintaining residential segregation).

18. EDNA ULLMANN-MARGALIT, *THE EMERGENCE OF NORMS* (1977); see also ROBERT AXELROD, *THE EVOLUTION OF COOPERATION* 129–32 (1984) (arguing that cooperation can arise from repeat play); but cf. ELLICKSON, ROSE, & SMITH, *supra* note 14, at 233 (noting some of the many critiques of the Axelrod thesis).

number (n), the less likely the participants will be able to perceive and verify the acts of others, the more likely that each will realize that they cannot observe and verify the acts of others, and the more likely the ensuing distrust. If we add heterogeneity of culture, beliefs, and interests, then distrust appears to be entirely predictable. Distrust arises from nature of the commons or the multi-person PD: we would all be better off in the long-run if we made some sacrifices in the shorter term, but each party would be *best* off cheating while the others cooperate. Here too, as the game theorists say, the advantage of cheating is common knowledge among all the participants.

Thompson elaborated the suggestion that people are more likely to cooperate in collective action solutions if they think that others are bound to do so too—that is, if they perceive their contribution or forbearance is part of a shared effort rather than an individual one.¹⁹ If that is the case, then perhaps Hardin's mutually agreed-upon coercion might provide an antidote to distrust when put in place by an established governmental entity, say, within a given nation. More than that, even international solutions could be feasible: if individual people are in a sense "compiled" into nations, the "n" in "n-person" is substantially reduced to "n-nation."

Unfortunately, as James Krier observed many years ago, generally binding arrangements of any sort depend on solving another collective action issue, that is, at the management or rule-making level above the resource level.²⁰ At that level too, the size and homogeneity of the "n" in "n-person" matters: a small and unified polity is likely to have an easier time deciding on rules than a large and diverse one. Given sufficiently large numbers of governmental entities, and given heterogeneity in their willingness or ability to persuade or coerce their own citizenry, the prospects that national parties will agree on mutual coercion itself may become vanishingly small.

These considerations sound very familiar in politics of climate change. They can be illustrated particularly by the phenomenon that has acquired the unlovely but now widely-used name of "leakage."²¹ An example of leakage would be the following: Country A taxes carbon. Carbon-producing manufacturing interests

19. Thompson, *supra* note 2, at 245–46; see also JON ELSTER, *THE CEMENT OF SOCIETY: A STUDY OF SOCIAL ORDER* 203–04 (1989) (describing a variety of modes of conditional cooperation, depending on cooperation of others).

20. See James E. Krier, *The Tragedy of the Commons, Part Two*, 15 HARV. J. L. & PUB. POL'Y 325, 337 (1992) (identifying second-order commons problem at management level and hence circularity in call for coercion to solve commons problems).

21. See, e.g., Daniel A. Farber, *Carbon Leakage versus Policy Diffusion: The Perils and Promise of Subglobal Climate Action*, 13 CHI. J. INT'L L. 359 (2013) (describing the leakage phenomenon but arguing that it can be overcome).

in Country A then move to County B, which has no controls, or which has a sufficiently weak or corrupt government that its controls, whatever they may be, are easily evaded. Reasoning backwards from this “leakage” scenario, legislators in Country A may well decide not to tax carbon after all; Country A only loses industry while the atmosphere continues to load with carbon dioxide, but now from Country B. The issue is worse if Country A is contemplating not only Country B but also Countries C–Z. The logic of the leakage problem, then, is simply another variant on distrust—and distrust itself arises from the structure of the PD game, and most especially of the multiple-party PD or commons situation.

B. Ignorance

A second cognitive impediment to commons solutions occurs long before we fall into the distrust trap: we may not even *know* we have a commons problem.

Not long ago, I wrote a short article called “Surprising Commons,” which puzzled over the question of why we are so often surprised by commons problems.²² Simply *not knowing* is a very typical feature of commons problems. There is a reason for this phenomenon: like distrust among the participants in a collective action scenario, ignorance stems from the very structure of the commons or collective action problem.

It is widely recognized that open access to a common resource disincentivizes forbearance about its use as well as investment in its conservation; indeed, that is the lesson of Hardin’s famous article on the Tragedy. But open access to common resources also disincentivizes *learning* about the resource.²³ The reason is that open access undermines a principal feature (if not *the* principal feature) of property—the right to exclude. Blackstone himself described the way in which an inability to exclude others degrades a person’s willingness to invest in a resource. As he put it in a rhetorical question, “who would be at the pains of tilling [the earth], if another might . . . seize upon and enjoy the product of his industry, art, and labour?”²⁴ But once the investor loses the promise of a payoff from her investment, she loses not only the incentive to make the investment in the first place, but also a chief incentive to *learn* about the resource. Why bother, if nothing will come of the knowledge?

22. See Carol M. Rose, *Surprising Commons*, 2014 BYU L. REV. 1257 (2014) [hereinafter Rose, *Surprising Commons*].

23. See generally Carol M. Rose, *Scientific Innovation and Environmental Protection: Some Ethical Considerations*, 32 ENVTL. L. 755, 761–64 (2002) [hereinafter Rose, *Scientific Innovation*] (exploring the link between property rights and incentives to investigate).

24. WILLIAM BLACKSTONE, 2 COMMENTARIES ON THE LAWS OF ENGLAND 7 (1766).

The quest for payoff is a powerful incentive to investigation; absent that motivation, some learning will occur, but it depends more or less on accidental factors, like sheer curiosity. By comparison, there is a longstanding and enormous investment in learning about production that treats open access resources as free inputs, at least until those resources start to become scarce. Take wildlife, for example: the human technologies for hunting go back millennia, as do the technologies for farming, with its byproduct of habitat destruction. The Endangered Species List, on the other hand, is less than fifty years old.

The treatment of wildlife exemplifies a mistaken idea that often plagues large-scale open access resources. That is the idea that they are inexhaustible—that we can never run out. In the later nineteenth century, proposals for fisheries regulation in Britain were met with the argument that the fish in the seas were limitless.²⁵ We know now how wrong that was. In recent years, however, the inexhaustibility fallacy has re-emerged in the wake of a famous bet between biologist Paul Ehrlich and economist Julian Simon.²⁶ In 1980, Ehrlich took up a challenge from Simon, wagering that a selected basket of commodities (chromium, copper, nickel, tin, and tungsten) would become increasingly scarce and expensive over a period of ten years; for his part, Simon bet that these substances would remain available and even fall in price. Simon won the bet handily; indeed, some of these metals' prices decreased by as much as two-thirds.²⁷

Some say that Simon's victory proves that we never run out of resources, because we will always be able to substitute intellectual capital for natural capital; others say Simon's victory was an anomaly.²⁸ But quite aside from the ultimate meaning of the bet itself, the problem for Ehrlich was that he bet on the wrong kind of resources. He bet on commodities that were owned by someone and that were bought and sold in markets. Markets respond to increasing scarcity by price rise, and rising prices then encourage conservation and the development and use of substitutes, dampening the effect of scarcity itself. Unfortunately, Ehrlich's side of the bet would have been quite appropriate for resources not generally found in markets—that is to say,

25. Gordon, *supra* note 12, at 126.

26. See PAUL SABIN, *THE BET: PAUL EHRLICH, JULIAN SIMON, AND OUR GAMBLE OVER EARTH'S FUTURE* (2013) (extensive background and discussion of the famous wager).

27. *Id.* at 134–36, 181; Carol M. Rose, *Property and Emerging Environmental Issues—The Optimists vs. The Pessimists*, 1 BRIGHAM-KANNER PROP. RTS. CONF. J. 405, 407 (2013) [hereinafter Rose, *Optimists-Pessimists*].

28. See SABIN, *supra* note 26, at 184–89, (discussing reactions to the outcome of the bet).

environmental resources.²⁹ The goods that we call “environmental” generally have no owners and hence they are not in markets, have no observed prices, and thus their scarcity triggers no price-based conservation or turn to market substitutes. With such goods, we do keep on taking and taking because they are “free,” or in the case of pollutants, dumping and dumping, because that too is “free.” We halt only when the resource runs so low that the pursuit costs more than the good itself or when the externalities from overuse overwhelm us or finally make us realize a need for non-market rationing, generally through regulation.³⁰

Another fallacy about open access resources derives from what has recently been called the problem of shifting baselines in environmental resources.³¹ Oysters in the Long Island Sound give an example: shell middens dating from before the European discovery of the Americas included some very large oyster shells, indeed, from eight to ten inches in length or more, suggesting that the oysters themselves were the size of a flattened volleyball.³² But even before the arrival of Europeans, the shells were growing smaller.³³ Shellfish harvesters tended to focus on the larger specimens, causing the average size of the shellfish to decrease over time, altering perceptions of the normal size of oysters.³⁴ Similarly, when overfishing occurs, each generation of fishers is likely to see smaller and smaller fish and fish populations—as was certainly the case for oysters.³⁵ As these decreases occur, successive classes of resource takers come to expect diminution. Natural fluctuations add “noise” that obscures this pattern, but the underlying perception is one of a “new normal” that shrinks over time. The point is that overall, shifting baselines lend themselves to ignorance about the gradual decline in open access resources.

The inexhaustibility fallacy, the shifting baseline perception, and ignorance about open access resources more generally are all

29. Rose, *Optimists-Pessimists*, *supra* note 27, at 407–10. Simon himself was somewhat ambivalent about the validity of his thesis for one environmental resource—air. *Id.* at 410.

30. See Gordon, *supra* note 12, at 132–34.

31. See, e.g., Hugh Powell, *On the Antarctic Peninsula, Scientists Witness a Penguin Revolution*, LIVING BIRD (Jan. 26, 2016), <https://www.allaboutbirds.org/on-the-antarctic-peninsula-scientists-witness-a-penguin-revolution/> (describing problem of “shifting baselines” in recognizing changes in population of various species). The first reference to a “shifting baseline” appears to be in Daniel Pauly, *Anecdotes and the Shifting Baseline Syndrome of Fisheries*, 10 TRENDS IN ECOL. & EVOL. 430 (1995). Thanks to Doug Harris for this information.

32. MARC KURLANSKY, THE BIG OYSTER: HISTORY ON THE HALF SHELL 18–19 (2006).

33. *Id.*

34. See *id.*

35. See *Oyster Restoration*, NAT’L OCEANIC & ATMOSPHERIC ADMIN. CHESAPEAKE BAY OFFICE, <https://chesapeakebay.noaa.gov/oysters/oyster-restoration>, (reporting that Chesapeake Bay oyster population is less than one percent of historic levels) (last visited Apr. 21, 2017).

artifacts of *not bothering to find out*. Moreover, not bothering to find out is itself an artifact of the structure of the commons. Finding out takes effort and money. But if there is no focused payoff, the initiative weakens to investigate what is happening to open access resources, just as the absence of focused payoff undermines any other kind of investment. Property rights focus the payoff, but open access resources lack property rights.³⁶

This is not to say that no one ever learns anything about open access resources. Curiosity helps. Crises help too, if they do not come too late. But they sometimes do come very late, if not altogether too late, and we may not even realize we have a problem until we are faced with a crash.

C. Insouciance (Freeform and Motivated)

A variant on the *not knowing* point about common pool problems is this: we may indeed see that we have a diminishing or degrading common resource, but we do not see it as a problem. In the case of climate disruption, one version would go roughly as follows: all right, yes, it is true, we now have over 400-parts-per-million carbon dioxide in the atmosphere, and yes, it may mean that global temperatures are rising. But so what? Humans are nothing if not adaptable, and anyway, warmer temperatures will be a boon to a lot of areas on the globe. So why get into a lather about it? Let's wait to see what happens.

Why do some take this view of climate change? One reason is sincere belief, not a factor to be dismissed. But another reason is a phenomenon to which Bonnie McCay alluded in describing factors that may help or hinder finding solutions to resource overuse problems. As McCay said, even where people realize that there may be some problem, "nothing will happen unless they see possible solutions to the problem"³⁷ Indeed, one might suspect the participants may engage in a form of reasoning backward: if a person cannot readily see a solution to a problem, she may be unwilling to designate it as a problem at all, which means that the quest for solutions retreats even further. Literature in psychology has explored a closely related mode of reasoning; that is, people tend to seek out information that confirms the views that they already have.³⁸ Exploring alternative explanations could suggest

36. Rose, *Optimists-Pessimists*, *supra* note 27, at 408–09; Rose, *Scientific Innovations*, *supra* note 23, at 760–62.

37. Bonnie J. McCay, *Emergence of Institutions for the Commons: Contexts, Situations, and Events*, in *THE DRAMA OF THE COMMONS* 361, 369 (Elinor Ostrom et al. eds., 2002).

38. Rachlinski, *supra* note 2, at 304–05; Thompson, *supra* note 2, at 272.

that one may not only have to change beliefs but change behavior as well, whereas inertia seems the easier path.

Notice, however, that these cognitive aspects of insouciance—ignoring problems to which one sees no solution—are connected to the structure of the collective action problem in fisheries. It really *is* an arduous task to address collective overfishing, making inertia attractive in comparison to a quest for solutions.

Nevertheless, climate disruption hardly squares with an explanation that no one can think of solutions. On the contrary, climate change has generated a great number of suggested solutions, or at least partial solutions. Among others are ideas for technical controls on GHG producers; taxes on the extraction or refinement of carbon-based fuels; taxes on the use of those fuels; more taxes on products derived from carbon-using methods; caps on GHGs together with tradable emission rights; measures to halt or at least slow deforestation (or even better, plant trees); subsidies for alternative energies like wind, waves, or solar; land use requirements for green architecture; and many, many more.³⁹ Such a large array of proposed solutions leaves a puzzle: could people possibly ignore climate disruption as a problem because they do not see solutions? On the contrary, is there not a surfeit of solutions?

Of course, one might think that none of them would be effective. But an alternative explanation for insouciance has been suggested, among other places, in an article by Troy Campbell and Aaron Kay. The authors describe an attitude that they call “motivated disbelief.”⁴⁰ The authors identify this as disbelief stemming not from a failure to see solutions, but rather from an aversion to the solutions proposed.⁴¹

These attitudes may not be entirely rational, but they are not totally irrational either. The difficulty of finding effective collective solutions to climate disruption can make the costs appear to be greater than the expected benefits, especially when

39. See WORKING GRP. III OF THE INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, *CLIMATE CHANGE 2001: MITIGATION* 26–54 (Rajendra Pachauri ed., 2001) (detailing a great variety of mitigation methods).

40. Troy H. Campbell & Aaron C. Kay, *Solution Aversion: On the Relation Between Ideology and Motivated Disbelief*, 107 *J. PERSONALITY & SOC. PSYCHOL.* 809 (2014).

41. See, e.g., Osofsky & Peel, *supra* note 3, at 722 (citing remarks of Navy Rear Admiral David Titley and explaining views of some who deny climate change). The psychological literature that Professors Rachlinski and Thompson discuss identifies a related phenomenon: a tendency to weigh one’s present losses more heavily than those that one might suffer in the future—particularly if the latter are uncertain. Rachlinski, *supra* note 2, at 307–11; Thompson, *supra* note 2, at 262–65, 272.

the latter are discounted to present value;⁴² in the meantime, why make one's self miserable?

Certainly one can think of many self-interested reasons for motivated disbelief, including simply identification with the views of a reference group, as discussed by scholars of "cultural cognition."⁴³ Distributional issues are likely to have a role as well; those who work in carbon-heavy industries like coal certainly have motives to discount climate disruption, or at least to disbelieve in human-induced contribution to climate disruption. One who works in a coal town might very much want to believe a message that foregrounds scientific uncertainty about climate change, and particularly about its connections to human carbon usage. Political representatives from that coal town might want to believe this message too. Other kinds of political motivations play a role as well. For example, advocates of limited government may not want to see efforts to combat climate disruption because they fear more bureaucratic intervention in their lives.

But perhaps the most significant and widely-shared self-interested motivation for disbelief is simply cost, and in particular, the perceived gap between costs and benefits, especially in light of the long time before benefits are likely to be realized.⁴⁴ The thought here is that proposed mitigation efforts are not true solutions because they are too expensive—that is to say, mitigation is too costly by comparison to ignoring the problem. Sophisticated versions of this position point out that the expenditures we make now on avoiding climate disruption will come at the expense of economic development and hence of funds available for other social expenditures; in turn, as a less wealthy society, we could be less equipped to deal with climate concerns in the future.⁴⁵ To take a relatively simple example, high current expenditures on climate issues may require cutting education or research budgets, leading to a future in which an impoverished scientific community has fewer resources for even understanding climate, much less for managing disruption.

42. See William H. Nordhaus et al., *The Question of Global Warming: An Exchange*, N.Y. REV. BOOKS (Sept. 25, 2008) [hereinafter Nordhaus et al., *Question of Global Warming*] (explaining the issue of discounting in the climate change context for events in the relatively distant future).

43. See Kahan, *supra* note 3, at 2, 23–24; Kahan & Braman, *supra* note 3, at 150; Osofsky & Peel, *supra* note 3, at 704; Verchick, *supra* note 3, at 969, 975.

44. Richard J. Lazarus, *Super Wicked Problems and Climate Change: Restraining the Present to Liberate the Future*, 94 CORNELL L. REV. 1153, 1160, 1167 (2009).

45. See, e.g., Bjorn Lomborg, *Global Priorities Bigger Than Climate Change* (Jan. 2007), in TED TALKS, https://www.ted.com/talks/bjorn_lomborg_sets_global_priorities/transcript?language=en (expenditures will do more good on problems other than climate change, expenditures on such problems lead to better future).

Quite aside from the more sophisticated arguments, however, the concern for expense translates easily into ordinary consumer preferences. Consumer A does not want her utility bills to go up. She also does not want to pay more for gas in the form of carbon taxes at the pump, or more for imports on which a carbon tax has been levied. Consumer B thinks that a house with green architecture is too expensive at the outset, and that even over a longer run, lower energy bills will not make up for the higher initial price. Consumer C is perplexed about the role of forests, hearing that tropical forests soak up carbon admirably, but that new trees in a cleared area might soak up more carbon than old ones did, and aside from that, that boreal forests could even have a warming effect because they replace heat-reflecting, white snow with heat-absorbing, green leaves. In addition, given the size and distance of tropical forests, Consumer C has no idea how to stop deforestation there, and in any event, she thinks that people in forested areas have legitimate reasons for wanting to cut down trees and devote the land to agriculture. It might be different if someone paid the locals to keep trees on the land, but Consumer C is reluctant to contribute to this effort, especially when the only other contributor she hears about is former Vice President Al Gore, with whose other politics she disagrees.⁴⁶

One can find many of these same concerns and cognitive processes in ordinary decision-making about individual matters, but they are exaggerated in connection with a large open access common resource. The complexity of subjecting such a resource to effective management can easily lead to a quite rational calculation that there really is no cost-effective solution to climate disturbance and, as McCay noted, that calculation can lead to insouciance.⁴⁷ Once again, one should notice that this cognitive impediment of insouciance comes with the territory of the commons. Ignoring a commons problem derives especially from the mistrust in others, not because they are bad people, but because they all know the same things. All parties know that the rational thing for them to do individually is to go on with business as usual; they know that all other parties are likely to come to the same conclusion; and finally, they know that all other parties will know what everyone else knows—and hence they know that restraint is likely to fall apart. This common knowledge about others creates the secondary

46. See Jesse Burkhardt, *Does Al Gore Affect Environmentally Related Behavior?*, *YALE ENV'T REV.* (June 5, 2012), <http://environment.yale.edu/yer/article/does-al-gore-affect-environmentally-related-behavior#gsc.tab=0> (reporting on finding that Gore's activism increased contributions to carbon offsets); but see John Schwartz, *The New Optimism of Al Gore*, *N.Y. TIMES* (Mar. 16, 2015), https://www.nytimes.com/2015/03/17/science/the-new-optimism-of-al-gore.html?_r=0 (describing vociferous political attacks on Gore's environmentalism); see also Kahan, *supra* note 3, at 19–21 (importance of reference group for perceptions).

47. McCay, *supra* note 37.

common knowledge: everyone knows that the problem is too big to try to solve, and hence the rational response is to ignore it.

IV. SOME ANTIDOTES TO THE COLLECTIVE ACTION COGNITIVE ISSUES

I have been arguing that the structure of the open access commons gives rise to cognitive tendencies that impede solutions to open access. These include distrust once a common pool problem is recognized, but also failure to realize that the problem exists at all, as well as indifference due to disbelief in the feasibility of solutions. Clearly there are other cognitive impediments to dealing with climate change—including differing perceptions of distributional consequences, differing views about fairness and merit or fault, and difficulty in weighing future benefits and costs against more immediate ones.⁴⁸ But distrust, ignorance, and insouciance are in a sense the most fundamental, springing from the very structure of commons or collective action problems.

After this lugubrious list, then, let me turn to some possible antidotes—some factors and phenomena that might grease the wheels to roll toward *solving* commons cognition problems, and in particular, toward overcoming structural cognitive hurdles to climate solutions. Unlike the issues I have been discussing so far, the following potential antidotes do not themselves spring from the structure of collective action, yet they do appear in practical life, and may offer some possible countervailing force.

Preliminarily, it is important to bear in mind that in spite of the substantial reasons for gloom about the cognitive issues arising from common pool scenarios, one positive point is that solutions do not necessarily require unanimity. As long as *some* actors are willing to tolerate *some* level of free riding, they can address collective action issues on their own. Moreover, once the ball is rolling, other participants may grow more willing to join. What this means is that leadership is especially important in addressing commons problems.⁴⁹ For my purposes, then, the chief inquiry is that of identifying factors that can overcome distrust, ignorance, and insouciance about climate disruption, leading to some adequate level of participation. What follows is by no means an exhaustive list of such factors, but it is at least a partial one.

48. See generally Kahan, *supra* note 3; Kahan & Braman, *supra* note 3; Libecap, *supra* note 4; Osofsky & Peel, *supra* note 3; Rachlinski, *supra* note 2; Thompson, *supra* note 2; Verchick, *supra* note 3.

49. See, e.g., Engel & Saleska, *supra* note 5, at 190–94 (efficacy of partial efforts to address climate disruption).

A. Motivated Belief

If motivated disbelief or motivated skepticism is one impediment to addressing climate disruption, its positive counterpart is motivated belief. Large scale collective action is very likely to involve heterogeneous interests, and that is clearly the case with respect to climate disruption. Some persons and organizations could actually gain from attention to climate disruption and from measures that address it. These are the people and businesses that economist Bruce Yandle and his co-authors have for several years been describing pejoratively as “Bootleggers and Baptists,” a name derived from the coalition that brought Prohibition to the U.S. one hundred years ago.⁵⁰

According to Yandle, the equivalents of the Baptists are environmental activists, of whom more will follow shortly. The Bootlegger equivalents, on Yandle’s account, are businesses that have something to sell if others get interested in climate issues—businesses like natural gas producers, nuclear power companies, and producers of wind and solar technology.⁵¹ Yandle’s nomenclature—“Bootleggers”—suggests that observers should view motivated belief with skepticism and distrust. From that perspective, motivated belief could become another impediment to collective action on climate concerns, adding to distrust and to a backlash against forward movement on climate concerns.

From a different perspective, however, some might say that we are lucky that we have the motivated believers. Putting the so-called Baptists to one side for the moment, and simply focusing on the more clearly self-interested Bootleggers, self-interest can serve an important purpose. Self-interest drives people to collect information, and information is especially important in coming to grips with a common problem as large and amorphous as climate change.⁵² Moreover, as Mancur Olson argued many years ago, concentrated self-interest can overcome collective inertia about political action.⁵³ Indeed, one might think that self-interest is essential in moving collective bodies toward action altogether.

50. The phrase first appeared in Bruce Yandle, *Bootleggers and Baptists—The Education of a Regulatory Economist*, 7 REG. MAG. 12 (1983). The ideas are further developed in Bruce Yandle & Stuart Buck, *Bootleggers, Baptists, and the Global Warming Battle*, 26 HARV. ENVTL. L. REV. 177 (2002). For the Kindle version, see ADAM SMITH & BRUCE YANDLE, *BOOTLEGGERS AND BAPTISTS: HOW ECONOMIC FORCES AND MORAL PERSUASION INTERACT TO SHAPE REGULATORY POLICY* (2014) (ebook).

51. Yandle & Buck, *supra* note 50, at 211–15.

52. Rose, *Scientific Innovation*, *supra* note 23, at 757–61.

53. MANCUR OLSON, *THE LOGIC OF COLLECTIVE ACTION: PUBLIC GOODS AND THE THEORY OF GROUPS* (1965).

Self-interest, then, can not only motivate learning about climate disruption, but it can also motivate action. Businesses in Arizona, along with local political figures, want to capitalize on the state's sunshine through solar power.⁵⁴ People in the U.S.'s northern plains and in Denmark hope to capitalize on wind power.⁵⁵ Chinese entrepreneurs, recognizing an economic opportunity, have already developed industries both in solar panels and modern windmills.⁵⁶ These industries have already brought down the cost of alternative energy sources, and no doubt more could be accomplished with further inducements to self-interest. Even more pointedly, island nations affected by rising sea levels also have an obvious motivation to generate information about the dangers of climate disruption.

All these interested players are likely to bring more attention to climate issues and to generate information about them, making others less likely to ignore climate disruption. To be sure, the Bootleggers' self-interest may sometimes cast doubt on the veracity of their climate pronouncements—but not always. Yandle has suggested that the island nation representatives are Bootleggers in disguise, on the ground that their true motives are aimed at garnering attention and aid.⁵⁷ But news coverage of the island nations argues that their plight enhances not only information about climate disruption, but also sympathy, perhaps reducing the level of motivated disbelief or sheer indifference.

In fact, the Bootleggers do seem to have made some difference in the climate disruption debate. Business interests as well as sinking island nations have dented ignorance and indifference about climate disruption. Despite some missteps and ambiguities—for example, the uncertainties around new natural gas sources to substitute for more carbon-intense fuels⁵⁸—the actual measures taken by interested industries have had the effect of making GHG mitigation seem more plausible, in spite of the enormous task ahead.⁵⁹

54. See, e.g., *Arizona Utility Company Plans to Build Solar Plant Near Phoenix*, KTAR NEWS (Jan. 28, 2016, 12:24 PM), <http://web.archive.org/web/20160129101613/http://ktar.com/story/877613/arizona-utility-company-plans-to-build-solar-power-plant-near-phoenix/>.

55. Roberta F. Mann, *Lighting in a Bottle: Using Tax Policy to Solve Renewable Energy's Storage Challenges*, 20 J. ENVTL. & SUSTAINABILITY L. 71, 79 (2013).

56. Robert V. Percival, *China's "Green Leap Forward" Toward Global Environmental Leadership*, 12 VT. J. ENVTL. L. 633, 635, 647–49 (2011).

57. Yandle & Buck, *supra* note 50, at 219.

58. See, e.g., Hannah J. Wiseman, *Risk and Response in Fracturing Policy*, 84 U. COLO. L. REV. 729, 734 (2013) [hereinafter Wiseman, *Risk and Response*] (environmentalists' splits on natural gas fracking).

59. See Schwartz, *supra* note 46 (describing Al Gore's new optimism about climate change mitigation).

B. Commitment: Exhortation, Conscience, and Esteem

What about the other side of the supposed “Bootleggers and Baptists” coalition—the “Baptist” side? Motivations on this side of the coalition are rather mysterious, at least from a rational-actor perspective. Yandle himself has not been entirely clear about the motives of the so-called Baptists in the climate change debate, and others have been equally murky, except perhaps to hint that the Baptist environmentalists are really Bootleggers in disguise.⁶⁰ For example, some have argued that scientists who warn about climate disruption are actually angling for more grants to fund their research.⁶¹

On the whole, however, conventional self-interest would appear to be a rather weak explanation for the motivation of many environmentalists. These so-called Baptists draw attention not to their own interests but rather to what they perceive as the interests and needs of others who are affected by human actions. In the case of climate disruption, environmentalists’ exhortations address issues on a huge scale; while some others may find their exhortations moralistic or self-righteous, it seems rather pointless to speak of self-interest in these contexts.

This is not to say that there is no “Baptist” element here, in the sense of an appeal to others to do the right thing. While vast collective action issues shape environmentalists’ messages on climate change, they often try to bring those issues to a human scale, using appeals to individual sympathy and even conscience. Many environmentalist writings focus on the special vulnerability of poverty-stricken or minority populations to sea level rise or increasingly violent storms, citing the plight of inundated island residents or small farmers in flood-prone regions.⁶² Some describe climate vulnerabilities that are not immediately obvious. For example, if climate disruption causes dry and hot places to become drier and hotter, not only will subsistence farming become all the more precarious, but water collection from greater distances will add to the burdens of already-overburdened rural women.⁶³ Former

60. See *supra* notes 50 & 51.

61. See, e.g., Roger W. Cohen et al., Letter to the Editor, *In the Climate Casino: An Exchange*, N.Y. REV. BOOKS (Apr. 26, 2012), <http://www.nybooks.com/articles/2012/04/26/climate-casino-exchange/> (claiming purposeful alarmism by climate scientists in Cohen’s Letter to the Editor and Nordhaus responding and refuting the claim).

62. Samuel P. Leatherman, *Social and Economic Costs of Sea Level Rise*, 75 INTERNATIONAL GEOPHYSICS 181, 199–204 (2001) (Sea Level Rise: History and Consequences, ed. Bruce C. Douglas, Michael S. Kearney, and Stephen P. Leatherman, Ch. 8).

63. See, e.g., Francie Diep, *Four Ways Climate Change Affects Women More Than Men*, PACIFIC STANDARD (Sept. 30, 2015), <https://psmag.com/four-ways-climate-change-affects->

President of Ireland Mary Robinson now heads an organization that appeals to “climate justice,” and other writers join her in addressing climate disruption as a problem in international human rights.⁶⁴ Even Pope Francis has now famously weighed in on topics relating climate disruption to poverty.⁶⁵

The human costs of climate disruption are not the only focus of environmental publicity. Following the 2014 Report of the Intergovernmental Panel on Climate Change (IPCC), environmental writers could cite its findings on the effects of ocean warming and acidification on coral reefs, fish, and shellfish populations, not to mention polar bears and large marine mammals.⁶⁶ Birding magazines describe what appears to be an increasing disjunction between some bird migration patterns and the seasonal plant and insect sources that have hitherto provided nourishment.⁶⁷ Forest destruction through wildfires, low water levels and high temperatures in fishing streams, and rising jellyfish populations—all are grist for environmentally-oriented books and periodicals, and add to the sense of urgency about the natural and aesthetic effects of climate change.⁶⁸

Garrett Hardin scoffed at appeals to conscience,⁶⁹ but all this hortatory literature may have made some difference in attitudes toward climate disruption and its effects. Descriptions of higher mean temperatures and altered ocean currents are rather abstract,

women-more-than-men-4ea0750c23b9#.tgxdq4r74 (describing water collection as one of the ways women are especially affected by climate change).

64. MARY ROBINSON FOUNDATION: CLIMATE JUSTICE, <http://www.mrfcj.org/> (last visited Apr. 21, 2017). See, for example, Margaux J. Hall & David C. Weiss, *Avoiding Adaptation Apartheid: Climate Change Adaptation and Human Rights Law*, 37 YALE J. INT'L L. 309 (2012), for other writings discussing human rights implications of adaptation measures.

65. See Pope Francis, *Encyclical Letter, Laudato si': On Care for Our Common Home*, VATICAN PRESS (May 24, 2015), http://w2.vatican.va/content/dam/francesco/pdf/encyclicals/documents/papa-francesco_20150524_enciclica-laudato-si_en.pdf.

66. For these and other effects on oceans, see generally Working Group II of the Intergovernmental Panel on Climate Change, *2014: Ocean Systems*, in CLIMATE CHANGE 2014: IMPACTS, ADAPTATION, AND VULNERABILITY 411 (C.B. Field et al. eds., Cambridge Univ. Press, 2014). For environmental comments, see, for example, Reed McManus, *Saving the Fuzzy Face of Climate Change*, SIERRA CLUB (Nov. 7, 2014), <http://www.sierraclub.org/sierra/2014-6-november-december/green-life/saving-fuzzy-face-climate-change> (citing IPCC report, describing polar bears as “poster species of climate change,” questioning the relationship with Coca-Cola advertising).

67. See, e.g., Jack Connor, *Purple Martins, Ecological Mismatches, and Climate Change*, LIVING BIRD (Apr. 15, 2015), <https://www.allaboutbirds.org/purple-martins-ecological-mismatches-and-climate-change/>.

68. See, e.g., Robert L. Glicksman, *Ecosystem Resilience to Disruptions Linked to Global Climate Change: An Adaptive Approach to Federal Land Management*, 87 NEB. L. REV. 833, 839-49 (2009) (listing wide range of environmental effects of warming, including forest fires and fish kills); Robin Kundis Craig, *Avoiding Jellyfish Seas, or, What Do We Mean by “Sustainable Oceans,” Anyway?*, 31 UTAH ENVTL. L. REV. 17, 19–20 (2011) (linking jellyfish proliferation to climate change).

69. Hardin, *supra* note 7, at 1246–47.

whereas photographs of flooded shacks and dead fish carry a graphic punch and a more visceral sympathy. One day in the fall of 2015, the *Wall Street Journal* ran a comment suggesting that the oil industry needs to show its credibility on issues of climate change; the papal encyclical *Laudate Si* got a prominent mention.⁷⁰ Moral suasion may actually be an important function of the numerous international conferences on climate change as well. Even though they generally have seemed to end in disappointment, they act as constant publicity and exhortation about the potential human costs of climate disruption.

What are the reasons for the responses to these appeals? Sympathy may be built into human cognition, even though sympathetic responses do appear to be powerfully mediated by the culture and by the expectations of others in one's surroundings. Well-known academic works have documented the increasing sympathy toward animals over the last several centuries,⁷¹ along with the more positive attitudes toward nature⁷² and even toward other human beings.⁷³ Even modern drug lords and religious fanatics use their terrible brutality to leverage widespread horror and shock, capitalizing not only on modern media but also on a highly developed sense of sympathy for unknown others—a sympathy that may be relatively new in human history.⁷⁴

Philosophy professor Philip Pettit, joined somewhat later by law professor Richard McAdams, explored a cognitive factor that is related to the sympathetic reaction to exhortation, and one that could have a similar role in overcoming collective action problems: the role of *esteem*. They argue that a quest for esteem can act as a motivator, leading individuals to behave generously or cooperatively, not only out of sympathy to others, but in addition from a wish to make others will think well of them.⁷⁵ If that

70. Liam Denning, '*Laudato Si*' and the Energy Industry's Change of Climate, *WALL ST. J.* (June 18, 2015), <https://blogs.wsj.com/moneybeat/2015/06/18/laudato-si-and-the-energy-industrys-change-of-climate/>.

71. See, e.g., KEITH THOMAS, *MAN AND THE NATURAL WORLD: CHANGING ATTITUDES IN ENGLAND 1500-1800* (1983) (documenting changing attitudes to animals since seventeenth century).

72. RODERICK FRAZIER NASH, *WILDERNESS AND THE AMERICAN MIND* 9–12, 44–55, 263–64 (5th ed. 2014).

73. See STEVEN PINKER, *THE BETTER ANGELS OF OUR NATURE: WHY VIOLENCE HAS DECLINED* (2011).

74. *Id.* For another observation on the modern origins of sympathy, see ALEXIS DE TOCQUEVILLE, *2 DEMOCRACY IN AMERICA* 172–77 (1945), which describes casual indifferences to sufferings of lower classes in earlier centuries, attributing Americans' compassion and "softening of customs" to equality.

75. See Philip Pettit, *Virtus Normativa: Rational Choice Perspectives*, 100 *ETHICS* 725, 745–50 (1990); Richard H. McAdams, *The Origin, Development, and Regulation of Norms*, 96 *MICH. L. REV.* 338 (1997).

analysis is true, the quest for esteem may help to pave one path out of the Tragedy of the Commons.

Prestige and honor do appear to matter both individually and collectively with respect to environmental matters such that individuals and organizations will go out of their way to give off an impression of contribution rather than indifference.⁷⁶ Some individuals buy houses built to Leadership in Energy and Environmental Design (LEED) standards despite the cost; many firms engage in green advertising; and states like California lead by example with respect to GHG reduction. It would seem that the U.S. and China have both been put on the defensive as laggards with respect to climate issues—and both appear to have responded in some measure to avoid disapprobation, though future actions are uncertain, particularly with respect to the U.S.⁷⁷

A few words of caution: As mentioned above, the cognitive factors of commitment discussed in this section—the response to sympathetic exhortation, the quest for esteem and the avoidance of shame—may help to overcome commons or collective action problems, even at large scales, but they do not flow directly from those commons or collective action issues in the way that, say, distrust or insouciance does. Instead, commitment factors have to *overcome* the usual distrust or indifference that plague commons problems. Unfortunately, commitment factors, like unilateral gifts, can backfire and themselves spark mistrust.⁷⁸ Hortatory appeals to righteous behavior can seem insincere or even devious.⁷⁹ Those who hope to garner esteem by setting a good example may instead seem self-interested—that is, interested only in fame or in some secret payoff.

Thus, the relationship between an actor's self-interest and a perceiver's distrust would appear to be a curious balancing act: too much self-interest is untrustworthy because it is rapacious, but too little self-interest is also untrustworthy, because it is false or at

76. See McAdams, *supra* note 75, at 370–71 (using example of recycling).

77. President Donald Trump's environmental chief casts doubt on climate change, Coral Davenport, *E.P.A. Chief Doubts Consensus View of Climate Change*, N.Y. TIMES (Mar. 9, 2017), <https://www.nytimes.com/2017/03/09/us/politics/epa-scott-pruitt-global-warming.html>; see also Brian Spegele, *World News: China to Put a Little Less Energy Into Clean Power*, WALL ST. J., Dec. 5, 2016, at A9 (describing grid problems and slowing economy as impediment to solar and wind industries in China).

78. See Rose, *Giving, Trading, Thieving, and Trusting*, *supra* note 17, at 299–301 (describing unease about unilateral gifts).

79. In addition, the quest for esteem can take ominous directions, as in the wish to establish a reputation for ferocity. See Jon Elster, *Norms of Revenge*, 100 ETHICS 862 (1990) (describing pervasive social approval of revenge in Albania). Former Vice President Al Gore, whose great interest in global warming has resulted in a profitable business venture, has come in for particularly sharp criticism and charges of hypocrisy. See Schwartz, *supra* note 46 (querying Gore about criticism).

least seemingly false. This leads to the question: might there be a Goldilocks position of just-rightness, particularly with respect to climate disruption? I explore one possibility in the next section.

C. Interestingness and Fun

One aspect of well-known and successful commons regimes has perhaps not received the attention it should: they have a good deal of room for recreation, enjoyment, and excitement. In her great work, *Governing the Commons*, Elinor Ostrom listed a number of factors that have been essential to success in traditionally managed common pool resources, including: capacity for monitoring among the participants, methods for punishing infractions without unduly alienating culprits, regular mechanisms for dispute resolution, and so on.⁸⁰ One factor that Ostrom might have noted more prominently, however, was hedonic—that is to say, simply fun. Students of medieval commons know that commons communities had regular events for amusement: festivals, community meals, dances, carnivals, along with sporting events, like cricket and horse races.⁸¹ Some of those events have lasted to this day—like the horse races in Siena.⁸² Modern public trust doctrines about beaches and parks have also included an important element of recreation, arguably as a kind of social glue, to keep even a very large and diverse community together.⁸³

However, aside from Earth Day celebrations and the daredevil antics of Greenpeace, large-scale environmental issues would not appear to generate much collective recreation—especially when those issues have the global scale of climate disruption. But what those issues do have is *interestingness*. Interestingness has already had an impact on the very widespread collection of information through the internet, famously in connection with Wikipedia and Linux. Contributors to these sites form a kind of open community—one that might be replicated in at least some aspects of climate information collection.⁸⁴ Citizen Science projects already inform

80. OSTROM, *supra* note 9, at 88–102.

81. Carol Rose, *The Comedy of the Commons: Custom, Commerce, and Inherently Public Property*, 53 U. CHI. L. REV. 711, 740–41 (1986) [hereinafter Rose, *Comedy of the Commons*].

82. See Rick Steves, *Siena and Its Crazy Horse Race*, SMITHSONIAN MAGAZINE (Apr. 2009), <http://www.smithsonianmag.com/ricksteves/siena-and-its-crazy-horse-race-20432031/>.

83. Rose, *Comedy of the Commons*, *supra* note 81, at 779 (describing parks and recreation as “social glue”).

84. See Yochai Benkler, *Coase’s Penguin, or, Linux and The Nature of the Firm*, 112 YALE L. J. 369, 386 (2002).

climate-related data collection, among other matters on snowfall patterns, insect and bird migrations, and budding and flowering times of plants.⁸⁵

Interestingness probably also plays some role in the international conferences on climate change. These conferences involve travel to distant locations, meetings of colleagues and friends, excitement of visitations by powerful political figures, and so on. The interestingness of these conferences must help to keep some participants coming, in spite of regularly dashed hopes.

Interestingness and fun do seem to have found the Goldilocks position between self-interest and distrust in some common pool situations. To do something for fun in a common pool situation—like observing and reporting bird migrations—is to do something that is self-interested, but that is also very unlikely to arouse the suspicion of others, because one's motives are easily understood. However, I do not think it wise to rely a great deal on this hedonic cognitive factor as an antidote to the collective action problems presented by climate disruption. A fun factor is not likely to play much of a role in finding common ground in issues of such enormity, and with such great economic and political ramifications. But unfortunately, there may not be many other occupants of a Goldilocks position with respect to climate-related collective action issues.

Summing up so far, then, it appears that on the one hand, large scale commons problems produce a cognitive impasse to efforts to address climate disruption, while on the other hand, only few and lightweight cognitive factors loosen the blockage. Given that doleful imbalance, perhaps we need to face the possibility that conventional large-scale collective action solutions are not to be found.

V. WHAT IF COGNITIVE ANTIDOTES DON'T SUFFICE? OR, REDUCING THE COGNITIVE TRAPS BY REDUCING THE SCOPE OF COLLECTIVE ACTION

In a talk at the University of Arizona in the spring of 2015, Climate Justice founder Mary Robinson asserted that the then-upcoming Paris Climate Conference had better work, because, as she said, there is no Plan B.⁸⁶ University of Arizona professor and author Chris Kokinos attended that talk, as did I, and his reaction

85. See, e.g., *Citizen Science*, SCIENTIFIC AMERICAN, <https://www.scientificamerican.com/citizen-science/> (last visited Apr. 21, 2017) (listing an extensive array of ecology-related citizen science projects, including Snowtweets, Migratory Dragonfly Partnership, Season Spotter, among others).

86. Mary Robinson, *Everybody Matters: Climate Change and Human Rights*, Speech at the University of Arizona in Centennial Hall (Mar. 12, 2015).

was, there better be a Plan B, because Plan A—getting agreement and action by the national actors—has only very uncertain prospects.⁸⁷

Might there be some way to address climate disruption in a way that does not involve global cooperation to solve this wicked commons problem? That is to say, might there be some alternative paths that reduce the collective action aspects of dealing with climate disruption?⁸⁸ And if so, what might these be? In this final section, I will briefly comment on a few that have appeared on the horizon.

A. *Adaptation*

A first alternative path might be to concentrate on *adaptation* to climate change in addition to, or instead of, mitigation of the GHGs now flowing into the earth's atmosphere. Whatever might be done to mitigate GHGs, adaptation strategies concentrate on adjusting to current conditions: if coastal areas flood, move back; if some endangered squirrels are trapped on an overheating mountaintop, relocate them by helicopter; if the wells run dry, adopt some version of rationing or pricing, and so on.

One great advantage of adaptation is that the adapting entities do not need to act in concert. Small wonder, then, that the U.S. Department of Defense is much engaged in adaptation planning, as are a number of businesses and state and local governments.⁸⁹

Adaptation as a strategy certainly has raised some concerns. One set of concerns is at least partially psychological: the fear that attention to adaptation will lull us to under-expend on mitigation.⁹⁰ On the other hand, several environmental scholars have found, at least preliminarily, that these substitution effects may not be so

87. Kokinos made this remark as an invited guest to the seminar on Sustainability that I co-teach with Dean Marc Miller at University of Arizona's James E. Rogers College of Law in Tucson, Arizona, on April 15, 2015.

88. See Rachlinski, *supra* note 2 (concluding, after discussing a number of psychological barriers to addressing climate change, that nothing can be done unless the related collective action problems are substantially reduced).

89. See Sara E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014). For a recent example of local efforts, see Greg Allen, *As Waters Rise, Miami Beach Builds Higher Streets and Political Willpower*, NPR (May 10, 2016), <http://www.npr.org/2016/05/10/476071206/as-waters-rise-miami-beach-builds-higher-streets-and-political-will-power>. See also Robin Kundis Craig, "Stationarity is Dead"—*Long Live Transformation: Five Principles of Climate Change Adaptation Law*, 34 HARV. ENVTL. L. REV. 9, 25–31 (2010) (describing complex tasks for adaptation measures).

90. Eric Biber, *Climate Change and Backlash*, 17 N.Y.U. ENVTL. L.J. 1295, 1362 (2009) (noting IPCC concern about "trade-off" between adaptation and mitigation).

great.⁹¹ Indeed, it is at least possible that adaptation measures can be important psychologically in the opposite direction, lessening the sense that nothing can be done about climate change. Adaptation measures may be undertaken locally (or even individually) and over considerably shorter time frames than mitigation, and possibly with less political rancor.⁹² This means that at least some adaptation measures may bypass major collective action conundrums—as well as the sense of helplessness that they engender—simply because adaptation measures substantially reduce the scope of the collectivity. Their smaller scale means that they do not require massive agreements by everyone, or even by other major players in the climate disruption arenas.

This is not to say that effective adaptation is likely to be easy or cheap, however. On the contrary, while environmental scholar Eric Biber regards adaptation as a necessary complement to mitigation, he nevertheless uses the example of sea level rise to observe that effective adaptation measures may be enormously expensive⁹³—which of course complicates the prospects for their adoption.

B. Geoengineering

Much more radical than most adaptation measures is another approach that would dramatically reduce the collective action aspects of climate disruption measures. That approach is what is now called *geoengineering*.

In the climate context, geoengineering generally means conscious, large-scale intervention in the earth's climate through some kind of technology, with the aim of counteracting the effects of greenhouse gas emissions. There are several different varieties of geoengineering, but the main versions fall into two types: first, *carbon reduction*, and second, *heat reduction*. Carbon reduction proposals often entail the enhancement of natural carbon sinks. Thus bioengineered plants might absorb large amounts of carbon from the atmosphere, or iron filings seeded in the ocean might encourage the growth of algae, which in turn absorb carbon and sink

91. See Amanda R. Carrico et al., *Does Learning about Climate Change Adaptation Change Support for Mitigation?*, 41 J. ENVTL. PSYCHOL. 19, 26–27 (2015). The reason why support does not change, however, is unfortunate: many people's views about climate change are so hardened politically that little can affect them. Note, however, that these findings do not focus on actual adaptation measures but rather on *learning* about adaptation possibilities.

92. See Biber, *supra* note 90, at 1361 n.195; see also Dan M. Kahan, *Cognitive Bias and the Constitution*, 88 CHI.-KENT L. REV. 367, 406–09 (2013) (arguing that local adaptation can avoid political conflicts associated with national climate change debates); Osofsky & Peel, *supra* note 3, at 715–16, 750–58 (same); Verchick, *supra* note 3, at 1006–10 (same).

93. Biber, *supra* note 90, at 1352–54, 1363–64.

to the ocean floor. Still another approach involves breaking up large quantities of rocks, which then absorb atmospheric carbon more rapidly.⁹⁴

Lest anyone thinks these approaches are merely science fiction, the Chinese have already used biotechnology to grow trees rapidly; while they are using this technology for paper production, carbon storage would seem to be only a short step away.⁹⁵ Iron filings for algae growth have already reached an experimental stage as well.⁹⁶

Aside from carbon reduction, a second major version of geoengineering concentrates on heat reduction—and it is even more controversial. There are various ideas about altering the reflectivity of the earth through plantings of light colored vegetation, but most of the discussions on this issue focus on sending particle materials into the atmosphere in order to reflect solar heat back into space. These particles would act as miniature mirrors; the most likely candidates are sulfate aerosols. Here too there has already been an experiment, though it was created by nature: when the Philippine volcano Mt. Pinatubo erupted in 1991, it sent vast quantities of sulfates into the atmosphere, resulting in a global cooling of one half degree Celsius.⁹⁷

It may seem absurd, not to say insane, to try to reduce global warming by replicating a volcano. But the great attraction of this particular geoengineering proposal—that is to say, sulfate aerosol seeding—is that it is very cheap. The cost of such a project was estimated in the mid-1990s at one to eight billion dollars per year to offset the warming effect of *all* greenhouse gases. A decade later, others estimated the cost at one billion per year. Even taking inflation into account, these are clearly trivial amounts by comparison to the cost of emissions limits on the one hand, or damage from warming on the other.⁹⁸

But, for purposes of this Essay, the truly revolutionary aspect of geoengineering proposals is that they do not really involve collective action at all, or if they do, it is only on a quite limited scale. Many

94. CHRIS WOLD ET AL., *CLIMATE CHANGE AND THE LAW* 1139–42 (2d ed. 2009); Freeman Dyson, *The Question of Global Warming*, N.Y. REV. BOOKS (June 12, 2008), <http://www.nybooks.com/articles/2008/06/12/the-question-of-global-warming/>.

95. See Mark Clayton, *Now, Bioengineered Trees Taking Root in China*, CHRISTIAN SCI. MONITOR (Mar. 10, 2005), <http://www.csmonitor.com/2005/0310/p14s02-sten.html>.

96. WOLD ET AL., *supra* note 94, at 1142; Paul Preuss, *Climate Change Scenarios Compel Studies of Ocean Carbon Storage*, SCI. BEAT BERKELEY LAB (Feb. 1, 2001), <http://www2.lbl.gov/Science-Articles/Archive/sea-carb-bish.html>.

97. David G. Victor et al., *The Geoengineering Option: A Last Resort Against Global Warming?*, 88 FOREIGN AFF. 64, 67 (2009).

98. Scott Barrett, *The Incredible Economics of Geoengineering*, 39 ENVTL. & RESOURCE ECON. 45, 49 (2008).

individual nations could afford to expend a few billion dollars per annum for aerosols. Indeed, quite a number of wealthy individuals could do so on their own.⁹⁹ To be sure, someone has to pay while others take a free ride, but readers will recall a point mentioned above: that solutions to collective action problems do not require universal accord, so long as some entity or person takes the lead and is willing to accept the non-contributing free riders. This kind of initiative may be predicted to occur most readily if the cost to the leaders is relatively low. It might also be predicted to occur more readily if something like fun kicks in to attract the relevant actors. The very high-tech, sci-fi-like character of geoengineering could be a major draw for some. As we have seen, a fun factor can counteract the cognitive blocks to collective action, and the prospect of fun might equally induce some individual or group of individuals to undertake geoengineering projects on their own.

There are of course major objections to technological climate measures like geoengineering—among others, those stemming from the lack of political consensus about tinkering with the global environment. But to stick simply to environmental objections, one such objection is that all these geoengineering ideas and measures involve unknown dangers, because we really do not know the consequences of such experiments with the earth, the oceans, or the atmosphere.¹⁰⁰ An answer to that objection, however, is that we have already been meddling with climate through our massive emissions of greenhouse gases, and it may be time to experiment consciously and on purpose, by contrast to our extremely clumsy and dangerous accidental “experiment” to date.

A second type of objection applies particularly to heat reduction measures: that these measures entirely neglect the problem of excess carbon not only in the atmosphere but increasingly in the oceans as well. As for the oceans, while sulfate aerosols may reduce heat, they do nothing to address the damage of carbon acidification, which is widely blamed as a factor in coral collapse as well as other kinds of fish mortality.¹⁰¹ And as for the atmosphere, sulfate aerosol seeding raises the frightening prospect of a start-and-stop scenario: that is, some entity might begin to seed sulfate aerosols in the atmosphere while no one addresses the buildup of carbon emissions, and then might suddenly stop the seeding. The earth could be overwhelmed by a sudden spike in temperature,

99. Victor et al., *supra* note 97, at 71–72.

100. *See, e.g., id.* at 69–71 (describing dangers).

101. *Id.* at 69.

due to the now-unmitigated and excessive pulse of GHGs, with all its heat-trapping effects.¹⁰²

Still another objection replicates and magnifies a concern about adaptation mentioned above: that geoengineering distracts us from the real problem, which is mitigation of greenhouse gases. Like adaptation—and indeed, one might class geoengineering as adaptation on a grand scale—geoengineering threatens to make us satisfied that we have done enough to deal with climate disruption when in fact we have not.¹⁰³

Thus, there is an ironic aspect both to adaptation and to geoengineering: neither necessarily depends upon breaking massive collective action blockages, and each could help us to get over the discouraging thought that nothing can be done about climate disruption. Moreover, that heartening effect could make it easier to address the much larger collective action issue of mitigation of greenhouse gases, while giving the world a breather during which we figure out how to address the knotty problem of mitigation. On the other hand, it could well be that the very fact of doing something on the adaptation front—especially geoengineering—makes mitigation seem less pressing. Why bother with mitigating GHGs, if the icecaps and glaciers build up again, the oceans recede, and the summers return to more normal temperatures?

I have to confess, though, that in spite of all the objections, I see a substantial possibility of geoengineering in our future. Our history of environmental engagement has been one of “muddl[ing] through,” or what James Krier calls “exfoliation”: trying the easiest thing first, until we realize that it is not working, or not working sufficiently, and then trying the second easiest, and so on.¹⁰⁴ Geoengineering’s potential escape from collective action, together with its low cost in the case of sulfate aerosols, form a combination that will be hard to resist unless we somehow either solve the global commons problem or come up with something else. This brings me to a third alternative route, and in fact, the one that seems to me most promising over the long run—if we get to have a longer run.

102. *Id.* at 69–70; see also Marlos Goes et al., *The economics (or Lack Thereof) of aerosol geoengineering*, CLIMATIC CHANGE (2011), http://sunburn.aoml.noaa.gov/phod/docs/Goes_etal_2011.pdf.

103. Victor et al., *supra* note 97, at 75.

104. James E. Krier, *The End of the World News*, 27 LOY. L.A. L. REV. 851, 851 n.3, 855–56 (1994) (describing origin of exfoliation idea). See generally JAMES E. KRIER & EDMUND URSIN, POLLUTION AND POLICY: A CASE ESSAY ON CALIFORNIA AND FEDERAL EXPERIENCE WITH MOTOR VEHICLE AIR POLLUTION, 1940-1975, at 12 (1977) (establishing the concept of exfoliation for the first time).

*C. Appeals to Interest:
National and Individual*

A third route bypasses the global commons problem by appealing to self-interest—that is to say, an appeal that casts a very wide net and draws in many people, rather than a unilateral action by some small set of actors, as in geoengineering. Here I would like to mention two sub-types of appeals to self-interest: one is a mixed strategy that uses self-interest to motivate collective action progress; the other simply bypasses the collective action issue altogether.

As to the first, William Nordhaus, who has argued that the free rider problem is the major impediment to climate cooperation, proposed in the same review essay a plan that he thought might overcome this impediment on a national basis.¹⁰⁵ Nordhaus argued for a trading club of nations to take the lead in limiting GHG emissions. This group would be likely to include the major developed nations at the outset, with whom trade is a valuable activity; others could join the club (and avoid tariffs on their trading goods), but only if they would do their part to limit emissions. The “climate club” would thus leverage something that most national entities should want—membership in a trading community—to induce them to do something they are reluctant to do, that is, take the efforts necessary to limit GHG emissions.¹⁰⁶ The underlying strategy should be familiar to parents the world over in speaking to children: you can do X, but only if you do Y. Parents, like the climate club, use self-interest in participation in one arena, in order to overcome self-interest in non-participation in another.

A strategy of this kind can have an impact on incentives, while it can also have an impact on cognitive element of distrust. Suppose that Country A has an interest in trade (X), and Country A knows that Countries B–Z are also interested in trade, so that Country A can have some confidence that Countries B–Z will also agree to emission controls (Y). The strategy creates a version of common knowledge, but here it is common knowledge of something positive: that others are likely to make cooperative contributions to dealing with climate disruption.

105. Nordhaus, *A New Solution*, *supra* note 1313.

106. *Id.* The argument is more fully developed in the original version. See William D. Nordhaus, *Climate Clubs: Overcoming Free Riding in International Climate Policy*, 105 AMER. ECON. REV. 1339, 1341 (2015) [hereinafter Nordhaus, *Overcoming Free Riding*]. For the initial and more general idea of a “climate club” of leading nations, see DAVID VICTOR, *GLOBAL WARMING GRIDLOCK: CREATING MORE EFFECTIVE STRATEGIES FOR PROTECTING THE PLANET* (2011).

Clearly there are many details that would need to be addressed before such a proposal could be brought into play, including the problem of integration into existing international trade agreements,¹⁰⁷ and then the very thorny issues of verification and enforcement—not to speak of the problems presented by a rising populism and anti-trade politics in Europe and the U.S. But from the perspective of this Essay, Nordhaus' proposal is interesting because it addresses a cognitive problem—distrust—that arises from the very structure of collective action. It does that by linking collective action in one domain to self-interest in another.

Let me come finally to another appeal to self-interest to address the massive collective action problem embedded in dealing with climate disruption. A bit of a parenthesis here goes to the topic of natural gas and hydraulic fracturing or “fracking,” particularly given that Florida State Law Professor Hannah Wiseman is a recognized national expert on the various legal challenges that fracking has posed. As Professor Wiseman has demonstrated in a remarkable series of articles on the topic, there are many serious problems with fracking, including, for example, water contamination from leaking pipes and potential small earthquakes from the disruption of the substrate layers.¹⁰⁸

But there is at least one important, positive lesson that we have learned from the (literally) explosive growth of fracking in the last several years: if a lower-cost alternative to carbon-intensive fuels is available, people will use it. Most notably, coal-burning electric utilities, one of our major producers of GHGs, have been shifting from coal or oil to natural gas all over the country. Do they expect regulatory limitations on greenhouse gas production? Yes, probably, though perhaps fewer than they did before the 2016 elections. Is the relatively clean-burning natural gas less troublesome for other air pollution regulation? Yes, definitely. But there is another factor, and it is enormously important: given the emergence of fracking, natural gas simply costs less.¹⁰⁹ And there is a lesson buried in that fact:

107. Nordhaus, *Overcoming Free Riding*, *supra* note 106, at 1349.

108. *See, e.g.*, Wiseman, *Risk and Response*, *supra* note 58, at 788–91 (recounting some of the hazards associated with fracking); Hannah Wiseman, *Fracturing Regulation Applied*, 22 *DUKE ENVTL. L. & POLY F.* 361, 364–68 (2012) (same). A partial list of Wiseman's other articles on fracking includes: John M. Goldin & Hannah J. Wiseman, *The Fracking Revolution: Shale Gas as a Case Study in Innovation Policy*, 64 *EMORY L. J.* 955 (2015); David A. Dana & Hannah J. Wiseman, *A Market Approach to Regulating the Energy Revolution: Assurance Bonds, Insurance, and the Certain and Uncertain Risks of Hydraulic Fracturing*, 99 *IOWA L. REV.* 1523 (2014); Hannah J. Wiseman, *Governing Fracking From the Ground Up*, 93 *TEX. L. REV.* 29 (2014); Hannah J. Wiseman, *Coordinating the Oil and Gas Commons*, 2014 *B.Y.U. L. REV.* 1543 (2014); Hannah J. Wiseman, *Regulatory Islands*, 89 *N.Y.U. L. REV.* 1661 (2014).

109. Goldin & Wiseman, *supra* note 108, at 966–67.

with all the problems associated with fracking, our experience shows that we should be looking for market-based routes around the collective action problem that climate change presents.

Examples of this route have already arisen in a number of different contexts. The energy-efficient Tesla automobile, once little more than a joke, is now attracting emulation from other automakers with an eye for profitability.¹¹⁰ Giant pork producer Smithfield is exploring methods to reduce its hog farms' considerable production of greenhouse gases, in part by capturing some of the major gases for energy.¹¹¹ These examples are not completely market-based, or at least not yet; electric autos still depend on governmental subsidies (though perhaps warranted in the effort to cut air pollution), while Smithfield hopes that consumers will pay somewhat higher prices for environmentally friendly products.

Another example that is more straightforwardly aimed at market forces is now playing out at the University of Arizona, under the leadership of two world-class astronomers (now retired), Roger Angel and Peter Strittmatter. Angel and Strittmatter have something of an environmental "Baptist" attitude: they regard climate disruption as a major threat to the planet, and they want to do something about it. But they have also taken a very hard-headed view: that the only effective route to greenhouse gas reduction will be to create alternative energy sources that are cheaper than coal or oil, or even natural gas—and to do so without subsidies, which they regard as unsustainable.¹¹²

These distinguished scientists have very extensive expertise with astronomical mirrors. They have formed a company, REhnu, that exploits their knowledge; they have developed a technology of simplified small-scale solar collecting mirrors together with a device to transfer their energy to photovoltaic cells.¹¹³ Their generating

110. See Sean McClain & John D. Stoll, *Toyota Chief to Oversee New Electric-Car Project*, WALL ST. J. (Nov. 30, 2016), <https://www.wsj.com/articles/toyota-chief-to-oversee-new-electric-car-project-1480528916>; see also Osofsky & Peel, *supra* note 3, at 729–35 (describing several programs based on economic benefits of climate change action, including Tesla, highlighting their capacity to smooth out partisanship).

111. Jacob Bunge, *Smithfield Sets Plan to Cut Carbon Emissions by a Quarter*, WALL ST. J. (Dec. 4, 2016), <https://www.wsj.com/articles/smithfield-sets-plan-to-cut-carbon-emissions-by-a-quarter-1480870861>. See also Michael P. Vandenbergh & Jonathan A. Gilligan, *Beyond Gridlock* 40 COLUM. J. ENVTL. L. 217 (2015) (description and analysis of numerous private firm efforts to limit GHGs).

112. See *About Us*, REHNU, <http://www.rehnu.com/about-us> (describing project to make solar energy competitive with fossil fuel). Professor Rachlinkski concluded his early survey of the psychology of climate change with the same view. See Rachlinkski, *supra* note 2, at 318–19 (only route to dealing with climate change is cheaper alternative fuel).

113. REHNU, *supra* note 112.

equipment is already well on the way to competing with more standard fossil-fuel energy, and in mass production could be even cheaper.

Obviously there have been false starts in the efforts to find alternative fuels. And obviously, the burden of introducing new alternatives would be relatively lighter if the existing competitors—carbon intensive fuels—were taxed for the environmental externalities that they produce. But Angel and Strittmatter, and others like them, are not counting on that.

In spite of the lack of a level playing field, inventors like these seem to be onto something: the way to make an end-run around collective solutions to climate disruption is to appeal to the individual self-interest of consumers. Notice that this approach differs from geoengineering in that it does not entail unilateral decisions by a few nations or individuals who make momentous decisions that affect everyone else. Instead, if cheaper and cleaner energy sources can be found, we will indeed see individual decisions, but in the enormously distributed universe of the market.

Individual decision-making to this kind dissipates the distrust issue that haunts climate change action, because on the whole, and all other things being equal, people can be relied upon to act in their individual self-interest. Moreover, that proclivity is common knowledge among all decision makers.

I do not wish to say that these efforts will necessarily succeed. It is indeed a major obstacle that carbon-based fuels enjoy an effective subsidy now, because they do not pay their environmental costs.¹¹⁴ One thing that governments might do, of course, is something that many economics-oriented environmentalists have proposed: impose a tax on carbon-based fuels. Ideally such a tax would come close to internalizing the environmental damage that carbon-based fuels cause. A tax of that magnitude may not be feasible politically, but even a more modest tax would allow entrepreneurs like Angel and Strittmatter to compete more realistically.¹¹⁵ One encouraging note is that the idea of a carbon tax has gained traction with at least

114. *See, e.g.*, David Weisbach, *Designing Subsidies for Low-Carbon Energy*, 20 *J. ENVTL. & SUSTAINABILITY* L. 1, 2–5 (2013) (describing tax breaks and untaxed external costs of carbon-based fuels); Cutler Cleveland, *Why Coal Should Not Be Saved*, *ENERGY IN CONTEXT* (Mar. 30, 2015), <http://energyincontext.com/2015/03/why-coal-should-not-be-saved/> (describing environmental and other harms of coal use for electricity).

115. *See, e.g.*, Weisbach, *supra* note 114, at 12–13 (advocating carbon tax); SHI-LING HSU, *THE CASE FOR A CARBON TAX: GETTING PAST OUR HANG-UPS TO EFFECTIVE CLIMATE POLICY* (2012) (same). William Nordhaus was an early advocate of carbon taxes and has proposed them in many of his writings. *See, e.g.*, Nordhaus et al., *Question of Global Warming*, *supra* note 42 (observing that a tax would convey information about carbon use as well as encourage innovation). His recent thinking would combine such enforcement through trade policy; *see supra* text accompanying note 105-107.

some conservative political actors.¹¹⁶ There are of course other possibilities for governmental action, from offering prizes, to rethinking the length of patents, to improving and integrating the power grid—all with the object of making consumers turn to clean or at least cleaner energy sources out of their own self-interest.

VI. CONCLUSION

In his 2015 papal encyclical, *Laudato si'*, Pope Francis called on all Catholics, and really all of the rest of us too, to take better care of the earth.¹¹⁷ The Pope's message, however, was noticeably hostile to technological approaches and market appeals. Francis instead thought that people should change their ways, becoming more careful and more caring about "our earthly home" and about one another.

Columnist and commentator David Brooks wrote a brief essay that disagreed with the Pope. Brooks argued that we human beings are flawed creatures, but that technological creativity is something that we do have, and that we need to use what we have instead of hoping that exhortation will make us good.

In this little debate, I have to say that I find Brooks' position more persuasive, however appealing Pope Francis' exhortation may be. Brooks stressed technology, but he might have made more of markets, because market activity is also something that persistently runs through our flawed human psyche. If climate science has taught us nothing else, however, it has taught us that our current energy markets are deeply flawed, because the standard fossil-fuel-based energy sources are effectively subsidized to cause great harm. Governments can help by lessening those subsidies, thereby encouraging alternative, technological developments that avoid climate harms.

My own view is that we need to look both to technology and to markets, as the thinkers and writers just discussed are arguing. Allaying climate disruption through geoengineering would certainly be a technological endeavor, but it is very unlikely to be market-based. Rather, given the opportunities for free riding, the deployment of geoengineering on any large scale is likely to depend on some nation's or some individual's initiative. Such efforts could even count as exercises in goodwill, based on the idea of taking the lead, spending some money, and making the world

116. John Schwartz, 'A Conservative Climate Solution': Republican Group Calls for Carbon Tax, N.Y. TIMES (Feb. 7, 2017), https://www.nytimes.com/2017/02/07/science/a-conservative-climate-solution-republican-group-calls-for-carbon-tax.html?_r=0.

117. Pope Francis, *Encyclical Letter, Laudato si'*, *supra* note 65.

better, even if others do not contribute. But like other unilateral efforts, geoengineering would not really dispel the distrust inherent in collective action. Questions would arise: What are the actors' true motivations? How do we know that they will not change their minds, with potentially disastrous consequences? And perhaps most important, who are you, actors, to make these risky decisions for all the rest of us?

On the other hand, technological improvements that speak to market demand depend on something more reliably human than goodwill gestures from a small number of nations or individuals, and more politically acceptable than unilateral action by those nations or individuals. If technological improvements not only displace GHGs but also appeal to large numbers of people and businesses through their pocketbooks, then those people and businesses will act accordingly. These widely distributed decisions may not be to everyone's liking, but they do not arouse distrust; people will quite reliably avail themselves of energy that is cheaper than the alternatives. Instead, multiple, distributed, market-based decisions create a positive common knowledge: that people can be trusted to do good, because they are doing well at the same time.

THE “GREENING” OF THE GLOBAL JUDICIARY

ROBERT V. PERCIVAL*

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I. INTRODUCTION

Throughout history the judiciary has played a key role in the development and implementation of principles of environmental law. Courageous, far-sighted judges have intervened at critical stages in history to articulate and apply key principles of law, particularly when other branches of government ignored festering environmental problems. Judges around the world are now becoming more sophisticated in handling environmental matters, and countries are establishing and expanding specialized environmental courts.

This article begins by describing the history of judicial involvement in environmental cases, starting with the common law the United States inherited from Britain and continuing through the rapid growth of environmental legislation in the final decades of the twentieth century. It then discusses the more recent growth of global environmental law and the role courts are playing in this

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development. The article reviews the growth of specialized environmental courts, how the judiciary is responding to climate change, and the efforts to increase the capacity of the global judiciary to handle environmental cases. The article concludes by examining the emergence of widely held principles of environmental law.

II. A HISTORY OF JUDICIAL INVOLVEMENT IN ENVIRONMENTAL LAW

Environmental law has much deeper historical roots than most people realize. For centuries, common law courts struggled to develop principles of environmental law before the advent of national regulatory programs. Once those programs were established, courts continued to play a crucial role in ensuring that they were implemented and interpreted correctly. Some courts around the world have used environmental provisions in national constitutions to break new legal ground in an effort to respond to contemporary environmental problems, such as climate change.

The history of the common law's involvement in environmental issues often is traced to 1610, when a British court ruled for the first time that even a non-trespassory invasion of one's interests in the quiet use and enjoyment of their property could be actionable as a private nuisance.¹ A century later, Lord John Holt used an ancient principal of Roman law known in Latin as *sic utere tuo ut alienum non laedas* in the case of *Tenant v. Goldwin*.² This is the principal that one can use his or her property as one pleases, but cannot do things that would cause significant, foreseeable harm to others. This has now been embraced as a fundamental principle of global environmental law. It is reflected in Principle 21 of the 1972 Stockholm Declaration, a product of the first global environmental summit.³ Principle 21 declares that states have a sovereign right to exploit their own resources, but also have the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other states.⁴ Twenty years later, at the Rio Earth Summit, that principle became Principle 2 of the Rio Declaration.⁵

Courts have not always been environmentally astute, particularly when they did not have the kind of environmental knowledge

1. Aldred's Case (1610) 77 Eng. Rep. 816, 821–22; 9 Co. Rep. 57b, 58a.

2. (1704) 92 Eng. Rep. 222, 223–24; 2 Lord Raymond 1089, 1091–92.

3. U.N. Conference on the Human Environment, *Report of the U.N. Conference on the Human Environment*, Principle 21, U.N. Doc. A/CONF.48/14/Rev.1 (June 5–16, 1972).

4. *Id.*

5. U.N. Conference on Environment and Development, *Rio Declaration on Environment and Development*, Principle 2, U.N. Doc. A/CONF.151/26/Rev.1 (Vol.1), annex 1 (Aug. 12, 1992).

we have today. In 1900, the U.S. Supreme Court declared that filling wetlands was so obviously a good thing that “the police power is never more legitimately exercised than in removing such nuisances.”⁶ The Court did not understand the important ecological functions that wetlands perform, which is why we have laws today to protect them.

Throughout the twentieth century, there were many disputes over interstate air and water pollution that the U.S. Supreme Court heard within its original jurisdiction to hear disputes between states. In one case, the Court actually wrote an air pollution control injunction;⁷ in another case, the Court effectively required the city of New York to build its first garbage incinerator.⁸ In 1933, the Court required the city of Chicago to build its first sewage treatment plant in order to stop massive diversions of water from Lake Michigan that were causing the levels of the Great Lakes to fall.⁹

Beginning in 1970, there was an avalanche of environmental legislation adopted by the U.S. Congress.¹⁰ At this time, protecting the environment was a bipartisan issue with each political party trying to be greener than the other.¹¹ The basic regulatory infrastructure of environmental law that exists today in the U.S. was erected then. These laws require agencies like the U.S. Environmental Protection Agency (EPA) to set up comprehensive national regulatory programs that are implemented and enforced jointly with the states.¹² Significantly, these laws also for the first time authorized citizen suits to compel agencies to implement the laws and enabled citizens to enforce them against violators.¹³

One of the most significant cases in U.S. environmental law was decided in 1976 after EPA for the first time set limits on the amount of lead that could be put in gasoline. The lead industry challenged this regulation, and by a 2-1 decision the court said that the case against lead in gasoline was “speculative and inconclusive,” because EPA could not prove that specific individuals had been harmed by the lead that was in the air in increasing quantities.¹⁴ After the three-judge panel struck down the regulation, the D.C. Circuit took

6. *Leovy v. United States*, 177 U.S. 621, 636 (1900).

7. *Georgia v. Tenn. Copper Co.*, 237 U.S. 478 (1915).

8. *See New Jersey v. City of New York*, 290 U.S. 237, 240 (1933).

9. *Wisconsin v. Illinois*, 281 U.S. 179, 196, 201–02 (1930).

10. ROBERT V. PERCIVAL, CHRISTOPHER H. SCHROEDER, ALAN S. MILLER & JAMES P. LEAPE, *ENVIRONMENTAL REGULATION: LAW, SCIENCE & POLICY* 92 (7th ed. 2013).

11. THEODORE WHITE, *THE MAKING OF THE PRESIDENT* 45 (1973).

12. *See PERCIVAL ET AL.*, *supra* note 10, at 92.

13. *See, e.g.*, *Clean Air Act Amendments of 1970*, 42 U.S.C. § 7604.

14. *See Ethyl Corp. v. EPA* [“Ethyl I”], 7 E.R.C. 1353 (D.C. Cir. Jan. 28, 1975), *reversed on rehearing en banc*, 541 F.2d 1 (D.C. Cir. 1976) (en banc).

the case *en banc*.¹⁵ The nine judges by a vote of 5-4 reversed the panel and upheld the regulation.¹⁶ The court recognized that the regulatory state had replaced the old common law model where A has to prove that B caused it harm. It endorsed precautionary regulation and deference to the expertise of the EPA Administrator.¹⁷ This decision helped spawn the phasing-out of lead additives from gasoline, one of the most successful programs in the history of environmental law. As lead emissions from gasoline declined, average lead levels in children's blood have plummeted.¹⁸ Now virtually every country in the world has emulated the U.S. and phased out leaded gasoline. A study by economists has found that because lead is a potent neurotoxin, the net benefits of removing it from gasoline range from two to three trillion dollars per year.¹⁹ The citizens of the world are now healthier and smarter, because they are not inhaling lead in the atmosphere from leaded gasoline.

In *TVA v. Hill*,²⁰ the U.S. Supreme Court sent a strong signal that the new environmental laws were to be taken seriously when it ruled that construction of a dam that was virtually complete had to be halted to protect the endangered snail darter.²¹ Most observers thought that the Court would find a way to let the project go forward, but instead it ruled that the new Endangered Species Act had to be enforced as written.²² Even though Congress ultimately found a way to circumvent the ruling and complete the dam, the Court's decision lent weight to the new environmental laws.

Judges have played a key role in helping the legal system adapt to change. The U.S. has the oldest written constitution in the world.²³ The U.S. Constitution does not mention the environment, but courts have relied on the power of Congress to regulate interstate commerce to uphold federal laws to protect the environment.²⁴ A few judges have disagreed with this. Judge David Sentelle, dissenting in a case upholding the constitutionality of the Endangered Species Act, noted that the word "ecosystems" is not in the U.S. Constitution and "an ecosystem is an ecosystem,

15. See *Ethyl Corp. v. EPA*, 541 F.2d 1, 54-55 (D.C. Cir. 1976) (*en banc*).

16. *Id.* at 54-55.

17. *Id.* at 36.

18. See Peter L. Tsai & Thomas H. Hatfield, *Global Benefits from the Phaseout of Leaded Fuel*, 74 J. ENVTL. HEALTH 8 (2011).

19. *Id.* at 12.

20. 437 U.S. 153 (1978).

21. *Id.* at 193-94.

22. *Id.* at 195.

23. *Constitution Rankings*, COMPARATIVE CONSTITUTIONS PROJECT, <http://comparativeconstitutionsproject.org/ccp-rankings/> (last visited Apr. 18, 2017).

24. See PERCIVAL ET AL., *supra* note 10, at 132-35.

and commerce is commerce."²⁵ Thus, he would not have allowed Congress to protect endangered species even though the more endangered the species is, the less commercial value it will have.

In previous scholarship, I have argued that a part of this nation's legal system that citizens can take the most pride in is the way in which the U.S. Constitution has evolved and adapted to protect the environment.²⁶ In other countries, the constitution is not that durable. In some Latin American countries, it seems as though whenever a new regime comes in, the party in power amends the constitution to keep itself in power. Some countries have had over thirty constitutions; the U.S. has had just one.²⁷ It is true that virtually every country that has adopted a new constitution or comprehensively amended their constitution in recent years has included some provisions that explicitly address the environment. Ecuador adopted a constitution that gives rights to nature and creates broad standing in environmental cases to defend nature.²⁸ When Syria's dictator Bashar al-Assad had his country's constitution amended to require the state to provide for the families of soldiers killed in the country's civil war he also added a provision that "[p]rotecting the environment shall be the responsibility of the state and society and it shall be the duty of every citizen."²⁹

In a number of important environmental cases, courts have used constitutional provisions to uphold significant environmental decisions. The Australian High Court in 1983 stopped a major dam project on the grounds that it was necessary to preserve a World Heritage site.³⁰ Relying on the government's constitutional authority under the external affairs clause, the court stated that treaty commitments to protect certain sites can be enforced constitutionally by the government.³¹

In India, the courts have created a system of public interest litigation with very broad standing for interested members of the public to bring environmental cases.³² M.C. Mehta has been the top public interest environmental lawyer. He petitioned the Supreme Court of India to take action to protect the Taj Mahal from

25. *Nat'l Ass'n of Home Builders v. Babbitt*, 130 F.3d 1041, 1065 (D.C. Cir. 1997) (Sentelle, dissenting).

26. See Robert V. Percival, "Greening" the Constitution—*Harmonizing Environmental and Constitutional Values*, 32 ENVTL. L. 809 (2002).

27. Tom Ginsburg, *Written Constitutions Around the World*, 15 INSIGHTS ON L. & SOCIETY 3 (2015).

28. See CONSTITUCIÓN POLÍTICA DE LA REPÚBLICA DEL ECUADOR, Oct. 20, 2008, art. 14–15.

29. CONSTITUTION OF THE SYRIAN ARAB REPUBLIC, 2012, art. 27.

30. See *Commonwealth v. Tasmania* (1983) 158 CLR 1 (Austl.).

31. *Id.*

32. See Peggy Rodgers Kalas, *Environmental Justice in India*, 1 ASIA-PAC. J. ON HUM. RTS. & L. 97, 106 (2000).

the ravages of air pollution.³³ Relying on Article 21 of the Indian Constitution that creates a “right to life,” which the court has interpreted to imply a right to a healthy environment, the court ordered that polluters who were harming the Taj Mahal had to cease doing so or relocate.³⁴

In the Philippines, environmental lawyer Tony Oposa brought a case to stop unsustainable logging.³⁵ The court upheld Oposa’s right to bring the case on behalf of future generations,³⁶ adopting an argument made in the scholarship of Georgetown Law Professor Edith Brown Weiss who has written on the notion of a planetary trust for future generations.³⁷ Relying on environmental provisions in the Philippines Constitution, Justice Hilario Davide ruled that the right to a clean environment was fundamental and the court issued orders to stop the deforestation.³⁸

The Supreme Court of Chile surprised everyone by using the Chilean Constitution in 1997 to reject a major project that would have logged old growth forests in the southern part of the country.³⁹ The court’s *Trillium* decision had a profound impact on the development of environmental law in Chile, based in part on a constitutional provision that ensures every Chilean the right to live in an environment free of contamination.⁴⁰

III. JUDICIAL PHILOSOPHIES AND ENVIRONMENTAL LAW

At his confirmation hearings in 1962, U.S. Supreme Court nominee Byron R. White was asked what he viewed the role of a U.S. Supreme Court Justice to be. “[T]o decide cases,” he responded.⁴¹ White’s response reflected the non-ideological nature of the U.S. judiciary at the time. The fact that he quickly was confirmed to the Court by a voice vote of the U.S. Senate after a single, ninety-minute hearing, illustrates the non-partisan nature

33. See *M.C. Mehta v. Kamal Nath* (2000) 6 SCC 213 (India).

34. *Id.* at 216–17.

35. See *Minors Oposa v. Factoran*, 33 I.L.M. 173, 185 (1994) (Philippines).

36. *Id.* at 191.

37. Edith Brown Weiss, *In Fairness to Future Generations*, 8 AM. U. INT’L L. REV. 19 (1992).

38. See *Minors Oposa v. Factoran*, 33 I.L.M. at 196–97.

39. Corte Suprema de Justicia [C.S.J.] [Supreme Court], 19 marzo 1997, “Horvath Kiss, Antonio c. Comisión Nacional del Medio Ambiente,” Rol de la causa: 4658–96, recurso de protección, F. del M. vol. xx No. Sentencia xxx (Chile).

40. *Id.*; *Rev. Derecho (Valdivia)* v.8 n.1 Valdivia dic. 1997 (Chile).

41. Dennis Hutchinson, *Byron R. White*, AM. NAT’L BIOGRAPHY ONLINE (July 9, 2008), <http://www.anb.org/articles/11/11-62626.html>.

of judicial confirmations at the time.⁴² But after President Ronald Reagan tried to shift the Court sharply to the right, President Reagan’s nomination of Robert Bork was defeated in 1987.⁴³ Ever since then, the process of confirming appointments to the U.S. Supreme Court has become increasingly partisan, as illustrated by the unprecedented and shameful refusal by the Republican-controlled U.S. Senate to consider President Barack Obama’s March 2016 nomination of Judge Merrick Garland.⁴⁴

Debates over judicial philosophy in the U.S. generally have split between judges who purport to apply the original intent of the drafters of the U.S. Constitution (“originalists”) and judges who advocate a “living Constitution” that adjusts to social and economic changes over time. Some judges use these judicial philosophies to lend a veneer of greater legitimacy to decisions whose outcomes align with their own policy preferences.⁴⁵

Justice Antonio Benjamin of the Supreme Constitutional Court of Brazil has contrasted the judicial philosophy of the current U.S. Supreme Court Chief Justice John Roberts (which he dubs *juiz espectador*) with Benjamin’s embrace of a more activist role (in his words, *juez protagonista*).⁴⁶ At his confirmation hearings, Chief Justice Roberts naively likened the role of a U.S. Supreme Court Justice to that of a baseball umpire, mechanically applying a clearly defined strike zone to “call balls and strikes.”⁴⁷ U.S. Court of Appeals Judge Richard Posner states that this is “a bad analogy” because the judge’s “most important role is creative—fitting the law to novel activities, transactions, technologies, and institutions.”⁴⁸

Justice Benjamin’s approach seems better suited to what Argentine Chief Justice Ricardo Lorenzetti has described as the

42. Peter Weber, *Neil Gorsuch, Trump’s Supreme Court Pick, Once Scolded Senate GOP for Blocking Merrick Garland*, THE WEEK (Feb. 1, 2017), <http://theweek.com/speedreads/677310/neil-gorsuch-trumps-supreme-court-pick-once-scolded-senate-gop-blocking-merrick-garland>; LEE EPSTEIN & JEFFREY A. SEGAL, *ADVICE AND CONSENT: THE POLITICS OF JUDICIAL APPOINTMENTS* 103 n. 30 (2005).

43. Linda Greenhouse, *Bork’s Nomination is Rejected, 58-42; Reagan “Saddened”*, N.Y. TIMES (Oct. 24, 1987), <http://www.nytimes.com/1987/10/24/politics/24REAG.html>.

44. Amber Phillips, *Obama Just Chose Merrick Garland for the Supreme Court. Republicans Still Won’t Confirm Him*, WASH. POST (Mar. 16, 2016), <https://www.washingtonpost.com/news/the-fix/wp/2016/02/13/can-republicans-really-block-obamas-supreme-court-nomination-for-a-year-probably>.

45. RICHARD A. POSNER, *DIVERGENT PATHS: THE ACADEMY AND THE JUDICIARY* 95 (2016); Mark Graber, *Justice Scalia’s Orwellian Jurisprudence*, BALKANIZATION (Feb. 16, 2016), https://balkin.blogspot.com/2016_02_01_archive.html.

46. Antonio Benjamin, Justice of the Supreme Constitutional Court of Brazil, Address at the Pace Law School International Symposium on Environmental Courts and Tribunals (Apr. 1, 2011).

47. *Confirmation Hearing on the Nomination of John G. Roberts, Jr. to be Chief Justice of the United States: Hearing Before the Committee on the Judiciary*, 109th Cong. 109–158 (2005) (statement of John Roberts, Chief Justice of United States).

48. POSNER, *supra* note 45, at 163.

transformative nature of environmental law, which challenges traditional doctrines in other areas of law, such as property law, torts, constitutional law, administrative law, and international law.⁴⁹ Chief Justice Lorenzetti has also been one of the first judges to openly acknowledge the special responsibility of the judiciary to intervene when other branches of government are failing to address festering environmental problems.⁵⁰ This is well illustrated by the Argentine Supreme Court's efforts in the *Beatriz Mendoza* case to require the national, provincial, and local governments to conduct a comprehensive cleanup of the Riachuelo River.⁵¹

Former Vermont Environmental Court judge Meredith Wright endorses a more activist judicial philosophy than Chief Justice Roberts. She cites the observation by the late U.S. Court of Appeals judge James B. Craven, Jr., that a judge "is not a bump on a log, nor even a referee at a prizefight. He has not only the right, but he has the duty to participate in the examination of witnesses when necessary to bring out matters that have been insufficiently developed by counsel."⁵²

In his book *Taking Back Eden*, Oliver Houck highlights how environmental lawsuits have served as catalysts for change throughout the world.⁵³ Even when environmental law was either nonexistent or rarely enforced, determined citizens sought to use the legal system to force change and courageous judges responded. As Houck notes, in most of these cases larger forces outside the courtroom (economic, cultural and political) influenced the outcome of environmental disputes, but the judiciary played an important role in facilitating the change.⁵⁴

IV. THE GROWTH OF SPECIALIZED ENVIRONMENTAL COURTS

Many countries are now establishing specialized environmental courts. Rock and Kitty Pring of the University of Denver Law School have put together a comprehensive database of environmental

49. See RICARDO LUIS LORENZETTI, *TEORIA DEL DERECHO AMBIENTAL* (2008).

50. Mario Wainfeld & Irina Hauser, *La Funcion de la Corte es Poner Ruido*, PAGINA12 (Jun. 25, 2006), <https://www.pagina12.com.ar/diario/elpais/1-69025-2006-06-25.html>.

51. See Corte Suprema de Justicia de la Nación [CSJN] [National Supreme Court of Justice], 20/7/2007, "Mendoza, Beatriz Silvia c. Estado Nacional / daños y perjuicios," Fallos (1569-M-XL) (Arg.).

52. *United States v. Ostendorff*, 371 F.2d 729, 732 (4th Cir. 1967).

53. OLIVER A. HOUCK, *TAKING BACK EDEN: EIGHT ENVIRONMENTAL CASES THAT CHANGED THE WORLD* 1-8 (2010).

54. Robert V. Percival, *Environmental Law Goes Global*, 41 ENVTL. L. REP. 10194, 10194-95 (2011) (reviewing OLIVER A. HOUCK, *TAKING BACK EDEN: EIGHT ENVIRONMENTAL CASES THAT CHANGED THE WORLD* (2010)).

courts, first released in 2009 in a book called *Greening Justice*.⁵⁵ They define an environmental court as “[a]ny government, judicial, or administrative body specializing in resolving disputes about environment, natural resources, land use, or related issues.”⁵⁶ In 2016, the Prings released an updated report on environmental courts under the auspices of the United Nations Environment Programme.⁵⁷ The new report describes an “explosion” in the growth of environmental courts since 2000,⁵⁸ finding that there are now more than 1,200 environmental courts and tribunals in 44 countries with 20 additional countries considering their adoption.⁵⁹

In the early 1970s, the U.S. Department of Justice considered whether the U.S. should establish a specialized environmental court in the federal court system, like the U.S. Tax Court or the Federal Circuit that deals with intellectual property issues.⁶⁰ DOJ recommended against it and no such court was created at the federal level.⁶¹ The state of Vermont has an environmental court that handles land use issues, and Hawaii Supreme Court Justice Michael Wilson has been charged with creating a specialized group within the Hawaii Supreme Court that will hear environmental cases.⁶²

What are the advantages of having environmental courts? These courts are supposed to improve the efficiency with which environmental cases are handled, and it is thought that judges, by specializing in environmental law, can develop greater expertise. Some courts mandate that some of the judges be scientists or have technical backgrounds.⁶³ One can question how frequently cases turn on disputed scientific testimony, but it certainly is good to have more scientific expertise. There have been several different models; some have been top down where the Supreme Court of a country or state has established the environmental court within itself, like a specialty group of judges. Others have been bottom up where the trial courts are the environmental courts and their decisions are

55. GEORGE (ROCK) PRING & CATHERINE (KITTY) PRING, *GREENING JUSTICE: CREATING AND IMPROVING ENVIRONMENTAL COURTS AND TRIBUNALS* (2009).

56. *Id.* at 10.

57. GEORGE (ROCK) PRING & CATHERINE (KITTY) PRING, *U.N. ENV'T PROGRAMME, ENVIRONMENTAL COURTS & TRIBUNALS: A GUIDE FOR POLICY MAKERS* (2016).

58. *See id.* at 1–9.

59. *Id.* at IV.

60. Scott C. Whitney, *The Case for Creating a Special Environmental Court System—A Further Comment*, 15 WM. & MARY L. REV. 33 (1973).

61. *Id.* at 33–34.

62. *See* Judge Merideth Wright, *The Vermont Environmental Court*, 3 J. CT. INNOVATION 201 (2010); Justice Michael D. Wilson, *The Hawaii Environmental Court: A New Judicial Tool to Enforce Hawaii's Environmental Laws*, 18 HAW. BAR J. 4 (2015).

63. PRING & PRING, *supra* note 57, at 26.

subject to an appeal.⁶⁴ In Chile, they are independent from the rest of the court system.⁶⁵

India has created the National Green Tribunal, and it seems to have improved environmental enforcement.⁶⁶ India is rapidly developing energy resources and its Green Tribunal has helped to redress illegal coal leasing. Australia's New South Wales has a Land and Environment Court led by Judge Brian Preston, who has been a very active participant in the IUCN Academy of Environmental Law.⁶⁷ One of the most interesting innovations from this court is something called "hot-tubbing," which is a way of resolving conflicts between expert witness testimony.⁶⁸ The court brings each side's experts together with the judge as though they were sitting together in a hot tub, and they talk about what they agree and disagree about in an attempt to narrow their differences.⁶⁹ Some judges in the U.S. are experimenting with similar techniques.⁷⁰

Chile has set up a system of environmental courts.⁷¹ The Chief Judge of the Environmental Court of Santiago is Rafael Asenjo. Creation of Chile's environmental courts reportedly was supported by business interests who were afraid that they would not get a fair shake from the existing Chilean court system.⁷² The court was structured to be truly autonomous, and the appointment and confirmation of its judges is a more difficult process than that of Chilean Supreme Court justices.⁷³ Two of the three judges are lawyers, and the other is required to have a science background.⁷⁴

In China, hundreds environmental courts have been established.⁷⁵ The Supreme People's Court has its own environmental chamber, and several provinces in China have established environmental courts.⁷⁶ One initial problem these courts have faced is

64. *Id.*

65. See PRING & PRING, *supra* note 57, at 20.

66. *Id.* at 8–9, 34.

67. *Id.* at 2, 21.

68. *Id.* at 56.

69. Megan A. Yarnall, *Dueling Scientific Experts: Is Australia's Hot Tub Method a Viable Solution for the American Judiciary?*, 88 OR. L. REV. 311, 323–25 (2009).

70. Concurrent Expert Evidence: Hot Tubbing in America? Experts Jump In, National L. Rev. Aug. 31, 2016, <http://www.natlawreview.com/article/concurrent-expert-evidence-hot-tubbing-america-experts-jump>.

71. See ENVTL. CT. OF SANTIAGO, <http://www.tribunambiental.cl/environmental-court-of-santiago/> (last visited Apr. 18, 2017).

72. PRING & PRING, *supra* note 57, at 28.

73. *Id.*

74. *Id.*

75. See PRING & PRING, *supra* note 55, at 1.

76. Alex L. Wang & Jie Gao, *Environmental Courts and the Development of Environmental Public Interest Litigation in China*, 3 J. CT. INNOVATION 37, 38–39 (2010).

that they do not have very many cases to handle.⁷⁷ The docket in one of the courts shows a preponderance of criminal cases brought against peasants for accidentally setting fires or illegal logging; thus, the cases are crackdowns against the powerless, rather than more ambitious attempts to hold more significant polluters accountable.⁷⁸

In June 2016, I had the extraordinary privilege of participating in a weeklong workshop sponsored by the Supreme People's Court to train Chinese environmental judges at the National Judges College in Beijing. On the grounds of the National Judges College is a "Woods of the Judge" where visiting judges can plant trees. More than 200 environmental judges participated in the training. Earlier that week the Supreme People's Court hosted its own full-day session on global climate change litigation. Even though there has been no climate change litigation in China, the judges are eager to learn about such cases in other countries.

As part of the weeklong training course, Zhou Qiang, Chief Judge of the Supreme People's Court, introduced Xie Zhenhua, who has been China's top negotiator in global climate talks leading up to the Paris Agreement in December 2015. Xie was formerly the head of the China's State Environmental Protection Agency, but for the last decade he has been handling China's international environmental negotiations. For two and a half hours he discussed how China's position on climate change has evolved over time and he told stories about the role China played in the Paris negotiations.

It may seem surprising that China has so many environmental courts, yet it has so few cases of public interest environmental litigation. In 2014, China amended its basic environmental law for the first time since 1989.⁷⁹ The new law specifically endorses public interest litigation on behalf of the environment, while limiting the number of organizations who can bring such cases.⁸⁰ Only a group that has been operating as an environmental non-governmental organization (NGO) for at least five years can bring public interest litigation.⁸¹ This may encourage more public interest litigation by groups who are known quantities, while not opening up the courts generally to public interest cases in other areas of law. The Communist Party really wants to clean up the environment,

77. Guangdong Xu & Michael Faure, *Explaining the Failure of Environmental Law in China*, 29 COLUM. J. ASIAN L. 1, 38–39 (2015).

78. *Id.* at 41–42.

79. Tyler Lui, *China's Revision to the Environmental Protection Law: Challenges to Public Interest Litigation and Solutions for Increasing Public Participation and Transparency*, 6 GEO. WASH. J. ENERGY & ENVTL. L. 60, 60–61 (2015).

80. Bo Zhang et al., *A New Environmental Protection Law, Many Old Problems? Challenges to Environmental Governance in China*, 28 J. ENVTL. L. 325, 329–331 (2016).

81. *Id.*

because pollution can be so bad at times that China's leaders may fear it will contribute to civil unrest.⁸² By creating an extensive system of environmental courts, the Party can show that it is serious about improving the environment while cabining public interest litigation to environmental cases.

V. CLIMATE CHANGE AND THE JUDICIARY

There have been a number of courageous judges around the world who have concluded that governments are not protecting their citizens from the growing harm caused by climate change. Several climate change lawsuits that initially were viewed as unlikely to succeed have produced favorable judicial rulings. In *Massachusetts v. EPA*, decided in 2007, the U.S. Supreme Court issued a decision that has been called the closest thing to "*Brown v. Board of Education* for the environment."⁸³ By a 5-4 vote, with Justice Anthony Kennedy providing the crucial vote for the majority, the Court held that states had standing to challenge EPA's failure to regulate greenhouse gas emissions.⁸⁴ The Court also held that the Bush Administration's rationale for refusing to regulate greenhouse gas emissions was arbitrary and capricious.⁸⁵ As a result of this decision, which also held that EPA already had authority under the existing Clean Air Act to regulate greenhouse gas emissions, the Obama Administration was able to launch a comprehensive program to control them.⁸⁶

Courts in Pakistan and the Netherlands have held that their governments are not doing enough to combat climate change, and they have ordered the creation of new government entities that will regulate greenhouse gases more stringently.⁸⁷ A federal district court in Oregon has refused to dismiss a lawsuit by children claiming that the federal government has violated their due process rights by failing to protect the environment from the ravages of climate change.⁸⁸ While these cases could be reversed on appeal, *Massachusetts v. EPA* is now a solid precedent which has enabled EPA to regulate greenhouse gas emissions.

82. *See id.* at 328.

83. Jonathan Cannon, *The Significance of Massachusetts v. EPA*, 93 VA. L. R. 53, 62 (2007).

84. *See Massachusetts v. EPA*, 549 U.S. 497 (2007).

85. *Id.* at 501, 535.

86. *See* Uma Outka, *The Obama Administration's Clean Air Act Legacy and the UN-FCC*, 48 CASE W. RES. J. INT'L L. 109 (2016).

87. *See* Leghari v. Federation of Pakistan, (2015) W.P. No. 25501 (Lahore High Court) (Pak.); District Court of The Hague 24 Juni 2015, ECLI:NL:RBDHA: 2015:7145 (Urgenda Foundation/Netherlands) (Neth.).

88. *See* Juliana v. United States, No. 6:15-cv-01517-TC (D.Or. Jan. 14, 2016).

At the same time a cautionary note is provided by Justice Ginsburg's opinion for a unanimous Court in *American Electric Power Co. v. Connecticut*.⁸⁹ In this case, the Court rejected a common law nuisance suit against coal fired power plants for contributing to climate change on the grounds that EPA was already using the Clean Air Act to regulate greenhouse gas emissions.⁹⁰ Justice Ginsburg stated that Congress and EPA are much better suited for resolving conflicts over climate change than individual judges issuing ad hoc, case-by-case injunctions.⁹¹ She noted that judges lack the scientific, economic, and technological resources that agencies have.⁹² This reinforces the notion that while the judiciary may well be suited to serve as a catalyst for change when other branches fail to address serious problems, the ultimate solution may have to come from the bureaucracy.

VI. CAPACITY BUILDING FOR THE GLOBAL JUDICIARY

Victims of environmental harm in developing countries often have sought to bring lawsuits against multinational extractive industries in developed countries where the companies are headquartered. These cases frequently are dismissed on *forum non conveniens* grounds, which provides a compelling rationale for why developing countries should enhance their own judicial systems. Several years ago, forty-six state attorneys general coordinated legal actions against the tobacco industry.⁹³ While individual lawsuits against the tobacco industry had failed due to assumption of risk, the states argued that by marketing these deadly products, the tobacco industry had forced the states to bear much greater health expenses.⁹⁴ That argument was so compelling that the tobacco industry in November 1998 settled the cases for \$205 billion.⁹⁵ In subsequent years, other countries where the exact same cigarette products were sold brought lawsuits in the U.S. seeking to recover on the same legal theory; however, the U.S. courts dismissed the lawsuits, claiming that they should not have

89. 564 U.S. 410 (2011).

90. *See id.*

91. *Id.* at 426–27.

92. *Id.* at 428.

93. Richard P. Ieyoub & Theodore Eisenberg, *State Attorney General Actions, the Tobacco Litigation, and the Doctrine of Parens Patriae*, 74 TUL. L. R 1859 (1999).

94. *Id.* at 1875–77 (1999).

95. *See Master Settlement Agreement*, NAT'L ASS'N OF ATTORNEYS GENERAL, http://web.archive.org/web/20080625084126/http://www.naag.org/backpages/naag/tobacco/msa/msa-pdf/1109185724_1032468605_cigmsa.pdf (last modified Mar. 4, 2010).

been brought in the U.S.⁹⁶ While that ended the lawsuits, if these foreign countries had the legal and judicial resources to handle such cases in their home countries, they also should have recovered.⁹⁷

The decades old litigation over Chevron's responsibility to clean up oil spills in Ecuador provides another compelling case for improving judicial capacity in developing countries. In the late 1970s, Texaco was invited by the Ecuadorian government to develop oil resources in the Oriente region of Ecuador. When Texaco pulled out of the country years later, it left behind considerable pollution from the oil extraction. The government of Ecuador reached an agreement requiring Texaco to do some remediation, but severe oil pollution remains decades later.⁹⁸

Claiming harm from the pollution, villagers in Ecuador sued Texaco in U.S. District Court for the Southern District of New York pursuant to the Alien Tort Statute.⁹⁹ After nine years of litigation, the district court agreed with Texaco that the lawsuit should be dismissed on the grounds of *forum non conveniens*.¹⁰⁰ Because Texaco then had very friendly relations with the government of Ecuador, the company maintained that the fairest forum to hear the case was in Ecuador.¹⁰¹ On appeal, the U.S. Court of Appeals affirmed the dismissal of the case, but with the important condition that Texaco agree to accept the jurisdiction of the Ecuadorian courts and to abide by any ultimate judgment.¹⁰²

The case was then re-filed in Ecuador in 2003.¹⁰³ After a change of government in Ecuador and the takeover of Texaco by Chevron, the litigation continued for another decade, with the new government now supporting the plaintiffs. Fearing it would lose the case, Chevron then filed a racketeering induced corrupt organizations (RICO) lawsuit against all the plaintiffs and their lawyers claiming that the litigation was a giant fraud.¹⁰⁴ A few days later, the trial court in Lago Agria, Ecuador, ruled for the plaintiffs and awarded them \$9 billion, most of which was to be used

96. Robert V. Percival, *Liability for Environmental Harm and Emerging Global Environmental Law*, 25 MD. J. INT'L L. 37, 57 (2010).

97. *Id.*

98. For a comprehensive description of this long-running dispute, see PAUL M. BARRETT, *LAW OF THE JUNGLE: THE \$19 BILLION LEGAL BATTLE OVER OIL IN THE RAIN FOREST AND THE LAWYER WHO'D STOP AT NOTHING TO WIN* (2015).

99. Percival, *supra* note 96, at 53.

100. *Id.*

101. *Id.*

102. See *Aguinda v. Texaco, Inc.*, 303 F.3d 470 (2d Cir. 2002).

103. Percival, *supra* note 96, at 58.

104. *Id.* at 60.

to clean up the continuing pollution.¹⁰⁵ *The Wall Street Journal* immediately ran an editorial with this astonishing claim:

There's more at stake here than one company's bottom line. The Ecuador suit is a form of global forum shopping, with U.S. trial lawyers and NGOs trying to hold American companies hostage in the world's least accountable and transparent legal systems. If the plaintiffs prevail, the result could be a global free-for-all against U.S. multinationals in foreign jurisdictions.¹⁰⁶

Of course this editorial completely ignored the fact that the plaintiffs wanted to have the case tried in the U.S., and Chevron was the reason the case had to be re-filed in Ecuador.

The plaintiffs have tried to collect on the Ecuadorian court's judgment in Argentina, Brazil, and Canada.¹⁰⁷ The courts of Argentina and Brazil agreed with Chevron's defense that its local subsidiaries were not liable for debts of the parent corporation; however, litigation continues in Canada.¹⁰⁸ Chevron won its RICO suit in the U.S., which was affirmed by the U.S. Court of Appeals for the Second Circuit.¹⁰⁹ As a result, any money recovered by U.S. lawyers will have to be repaid to Chevron.

Chevron was able to win its RICO lawsuit because of a lack of confidence in the capacity of the Ecuadorian judiciary. One need not take a position on the merits of Chevron's claims of fraud to realize that if the judiciary in developing countries improved its capacity to hear environmental cases, it would increase global confidence in the fairness of their procedures. Ultimately, multinational corporate defendants should want to have lawsuits against them tried in the courts of the U.S.

One of the reasons why U.S. courts are no longer entertaining these cases is because the U.S. Supreme Court has largely neutered the Alien Tort Statute on the novel basis that the presumption of extraterritorial application of domestic law should bar these lawsuits.¹¹⁰ That is novel because the presumption was not created

105. Simon Romero & Clifford Krauss, *Ecuador Judge Orders Chevron to Pay \$9 Billion*, N.Y. TIMES (Feb. 14, 2011), <http://www.nytimes.com/2011/02/15/world/americas/15ecuador.html>.

106. *Shakedown in Ecuador*, WALL ST. J., Feb. 15, 2011, at A. 16.

107. Roger Parloff, *Here's Why Ecuador's \$9.5 Billion Judgment Against Chevron Is Headed to Canada*, FORTUNE (Sept. 11, 2016), <http://fortune.com/2016/09/11/chevron-pollution-amazon-ecuador-canada/>.

108. *Id.*; Jeb Blunt, *Brazil Judge Dismisses Case Against Chevron, Transocean*, REUTERS (Oct. 1, 2013), <http://www.reuters.com/article/us-brazil-chevron-lawsuit-idUSBRE9900PR20131001>.

109. *See Chevron Corp. v. Donziger*, 833 F.3d 74 (2d Cir. 2016).

110. *See Kiobel v. Royal Dutch Shell Petroleum Co.*, 133 S.Ct. 1659 (2013).

until many years after the Alien Tort Statute was enacted by the first U.S. Congress in 1789.

While U.S. courts are closing themselves off from transnational litigation over environmental harm caused abroad, other courts are not. After *Trafigura*, a British trading company, dropped toxic waste on a beach along the Ivory Coast, some people died from exposure to the hazardous chemicals and others were hospitalized.¹¹¹ Lawyers brought a suit in British courts on behalf of those who were harmed.¹¹² During discovery, it was found that the head of the trading company had sent a cable to the ship captain congratulating him on his “novel” method of waste disposal.¹¹³ Once that was publicized, *Trafigura* settled the lawsuit for \$48.7 million.¹¹⁴ Another Dutch court has found Shell partially responsible for some of the oil spills in the Niger Delta.¹¹⁵ These cases illustrate that those who are harmed by activities of corporations in other countries may still have some remedies in the courts of developed countries, though not in the U.S. courts.

The election-year controversy over trade agreements has focused in part on their provisions for investor-state dispute resolution. During the 2016 U.S. presidential campaign, all presidential candidates opposed Congress approving the Trans-Pacific Partnership (TPP). One reason for this opposition is that the agreement allows companies to use investor-state arbitration panels to challenge the application of environmental regulations to their investments. In October 2016, one of the top international arbitrators in the Netherlands stated in a major speech that it is time to realize that the use of arbitration to resolve investor-state disputes has become a “lost battle.”¹¹⁶ This represents a realization that trade agreements should not be used to bypass normal judicial processes, an important lesson as the Transatlantic Trade and Investment Partnership (TTIP) negotiations continue.

Judges throughout the world are interested in improving their capacity for handling complex environmental cases. In April 2016, Brazilian Supreme Court Justice Antonio Benjamin, chair of the IUCN World Commission on Environmental Law, hosted the first

111. *Trafigura Found Guilty of Exporting Toxic Waste*, BBC NEWS (July 23, 2010), <http://www.bbc.com/news/world-africa-10735255>.

112. *Id.*

113. Guy Chazan, *Firm to Pay \$48.7 Million in Ivory Coast Pollution Case*, WALL ST. J., Sept. 21, 2009, A13.

114. *Id.*

115. Ivana Sekularac & Anthony Deutsch, *Dutch Court Says Shell Responsible for Nigeria Spills*, REUTERS (Jan. 30, 2013), <http://uk.reuters.com/article/us-shell-nigeria-law-suit-idUKBRE90S16X20130130>.

116. Caroline Simsom, *Attack on Investment Arbitration May Spill Over, Expert Says*, LAW360 (Oct. 12, 2016), <https://www.law360.com/internationalarbitration/articles/850540/attacks-on-investment-arbitration-may-spill-over-expert-says>.

World Environmental Law Congress in Brazil. The Congress, which brought together judges from all over the world, featured the launching of a new Global Judicial Institute for the Environment.¹¹⁷ The Institute is designed to facilitate information sharing about environmental cases by judges throughout the world.

VII. EMERGING PRINCIPLES OF ENVIRONMENTAL LAW

As the global dialogue among judges increases, widespread agreement is emerging among certain basic principles of environmental law. Not all of these principles command universal respect, but legal scholars are trying to flesh out these principles into more specific guideposts for the future development of global environmental law and policy.¹¹⁸

Principles of environmental law can be derived from many sources. The first United Nations Conference on the Human Environment, held in Stockholm in 1972, spawned global recognition of the importance of environmental problems. It was attended by representatives of 113 countries, 19 intergovernmental agencies, and more than 400 non-governmental organizations. The conference spurred many countries to develop their first environmental laws, and it resulted in issuance of the Stockholm Declaration. Subsequent UN conferences, including the 1992 Rio Earth Summit and its Rio Declaration, also articulated global agreement on important principles of environmental law.

A. Moral Obligation to Future Generations

There is broad acceptance for the notion that the current generation owes a moral obligation to future generations to protect the environment. The preamble and Principles 1 and 2 of the 1972 Stockholm Declaration on the Human Environment refer to mankind's responsibility to future generations, declaring it to be "an imperative goal for mankind" and "a solemn responsibility."¹¹⁹ More recently, this obligation was powerfully articulated in the encyclical *Laudato Si: On Care for Our Common Home*, which Pope Francis issued in 2015.¹²⁰ Surveying the world's principal

117. *Judges Establish the Global Judicial Institute for the Environment*, INTERNATIONAL UNION FOR CONSERVATION OF NATURE (Feb. 25, 2017), <https://www.iucn.org/news/judges-establish-global-judicial-institute-environment>.

118. See Tracy Hester et al., *Restating Environmental Law*, 39 COLUM. J. ENVTL. L. 1 (2015).

119. U.N. Conference on the Human Environment, *supra* note 3.

120. POPE FRANCIS, *LAUDATO SI: ON CARE FOR OUR COMMON HOME* (2015).

religious traditions, Pope Francis finds universal recognition of the importance of environmental stewardship to ensure that future generations will enjoy a planet with a healthy environment.¹²¹

The concept that humans should not exceed the carrying capacity of the planet, reflected in the notion of sustainability, is strongly embraced as a moral imperative. The desire to ensure that present and future generations enjoy the benefits of both a prosperous economy and a healthy environment has become a seemingly universal aspiration that can provide common ground between remarkably diverse interests. The concept of sustainable development has broad public support, but there can be sharp disagreements over specific policies for pursuing it.

B. The Sic Utere and Polluter Pays Principles

A fundamental principle of global environmental law is the notion that no one has the right to cause significant harm to others. As noted above, this principle, derived from ancient Roman law, was embraced by English common law courts three centuries ago, and incorporated into both the Stockholm and Rio declarations.¹²² When the stench from a neighbor's pigsty interfered with William Aldred's enjoyment of his property, an English court in the early 1600s established the principle that even non-trespassory invasions of private property rights could be actionable as private nuisances.¹²³ The notion that a physical invasion of property need not be proven to establish nuisance liability provided the foundation for a common law of environmental protection that could embrace air pollution. In a similar case in 1702, a neighbor's failure to repair a wall separating a privy from the property of another was held to be an actionable nuisance.¹²⁴ Ruling in *Tenant v. Goldwin*, Lord Holt cited the ancient Roman maxim *sic utere tuo ut alienum non laedas*, which he explained meant that "every man must so use his own as not to damnify another."¹²⁵ This principle—that no one has the right to use his or her property in a manner that causes harm to another—has come to be known as the *sic utere* principle.

As noted above, during the early 1900s, before the U.S. had established national regulatory programs to protect the environment, the U.S. Supreme Court applied the federal common law of interstate nuisance to resolve environmental disputes

121. *See id.*

122. *See supra* Section II.

123. Aldred's Case (1610) 77 Eng. Rep. 816, 821–22; 9 Co. Rep. 57b, 58a.

124. *See* *Tenant v. Goldwin*, (1704) 92 Eng. Rep. 222; 2 Lord Raymond 1089.

125. *Id.* at 224.

between states.¹²⁶ Using its original jurisdiction over lawsuits between states, the Court issued an injunction to control interstate air pollution from a copper smelter;¹²⁷ it ordered the city of New York to build a garbage incinerator to enable it to stop dumping its garbage in the ocean;¹²⁸ and it ordered the city of Chicago to build its first sewage treatment plant to enable it to reduce its intake of water from Lake Michigan, which was lowering the level of the Great Lakes.¹²⁹ The Court relied on the principle that states had a right to prevent environmental harm caused by pollution that originated in another state.¹³⁰ This principle ultimately served as an important precedent when an international arbitral panel issued the famous *Trail Smelter* decision to redress pollution from a Canadian smelter that was harming farmers across the border in Washington State.¹³¹

The enormous uncertainties involved in these pollution disputes made the Justices of the U.S. Supreme Court uncomfortable because, as they openly admitted, they lacked the expertise to function in the role of a national environmental agency.¹³² Thus, the Court was eager to abdicate its role as soon as federal environmental legislation was adopted that gave EPA the responsibility for issuing national regulatory standards. As Justice Ginsburg observed in 2011: "The expert agency is surely better equipped to do the job than individual district judges Federal judges lack the scientific, economic and technological resources an agency can utilize" ¹³³

In 1972, the nations of the world meeting at the Stockholm Conference on the Human Environment transformed the *sic utere* principle into a principle of international law.¹³⁴ Principle 21 of the Stockholm Declaration provides, "States have . . . the sovereign right to exploit their own resources . . . and the responsibility to ensure that activities within their jurisdiction or control do not cause damage to the environment of other States."¹³⁵ Twenty years later at the Rio Earth Summit, this principle was reaffirmed as

126. See *supra* Section II.

127. See *Georgia v. Tenn. Copper Co.*, 237 U.S. 474 (1915).

128. See *New Jersey v. City of New York*, 284 U.S. 585 (1931).

129. See *Wisconsin v. Illinois*, 281 U.S. 179 (1930).

130. See *Georgia v. Tenn. Copper Co.*, 206 U.S. 230 (1907).

131. See *Trail Smelter Arbitration (U.S. v. Canada)*, III R.I.A.A 1905, 1964–65 (Apr. 16, 1938 and Mar. 11, 1941).

132. See *New York v. New Jersey*, 256 U.S. 296, 313 (1921) (urging states to negotiate solutions to interstate nuisance disputes rather than relying on "proceedings in any court however constituted").

133. *American Electric Power Co. v. Connecticut*, 564 U.S. 410, 428 (2011).

134. See *supra* Section II.

135. U.N. Conference on the Human Environment, *supra* note 3, at 5.

Principle 2 of the 1992 Rio Declaration: "States have . . . the sovereign right to exploit their own resources pursuant to their own environmental and developmental policies, and the responsibility to insure that activities within their jurisdiction or control do not cause damage to the environment of other states or of areas beyond the limits of national jurisdiction."¹³⁶

The Stockholm Declaration promised to use the *sic utere* principle to develop more specific standards of liability and compensation for trans-boundary environmental harm.¹³⁷ However, this has not happened, as illustrated by the lack of any liability imposed or compensation paid in the aftermath of the Chernobyl nuclear accident in 1986.¹³⁸ Reflecting this failure, the 1992 Rio Declaration restated this commitment while adding that it should be fulfilled "in an expeditious and more determined manner."¹³⁹

Economic theory provides a powerful rationale for developing liability and compensation standards that internalize negative externalities, which neo-classical welfare economics teaches will improve economic efficiency.¹⁴⁰ The "Polluter Pays" principle, embraced in Principle 16 of the Rio Declaration, reflects an effort to hold pollution sources liable for the costs of their pollution.¹⁴¹ The Coase Theorem cautions that sometimes victims of pollution may be in a position to ameliorate the harm more efficiently than pollution sources.¹⁴² As a practical matter, the common law initially served as a kind of zoning function encouraging polluting sources to relocate away from populated areas, but it also performed a technology-forcing role, spawning the development of new pollution control technology.¹⁴³

The common law proved more useful in redressing large, single sources of pollution that caused visible harm than it did in dealing with chronic exposures to multiple pollutants. The adverse health effects of exposure to certain pollution are well known, but often it is difficult, if not impossible, to prove that a

136. U.N. Conference on Environment and Development, *supra* note 5, at Principle 21.

137. *See* U.N. Conference on the Human Environment, *supra* note 3, at Principle 22 ("State shall cooperate to develop further the international law regarding liability and compensation for the victims of pollution and other environmental damage caused by activities within the jurisdiction or control of such States to areas beyond their jurisdiction.").

138. *See* Percival, *supra* note 96, at 42.

139. U.N. Conference on the Human Environment, *supra* note 3, at Principle 13 ("States shall also cooperate in an expeditious and more determined manner to develop further international law regarding liability and compensation for adverse effects of environmental damage caused by activities within their jurisdiction or control to areas beyond their jurisdiction").

140. EBAN S. GOODSTEIN, *ECONOMICS AND THE ENVIRONMENT* 33-39 (1995).

141. *See* U.N. Conference on the Human Environment, *supra* note 3, at Principle 16.

142. *See* Ronald H. Coase, *The Problem of Social Costs*, 3 J. L. & ECON. 1 (1960).

143. *See* PERCIVAL, ET AL., *supra* note 10, at 88.

particular source of pollutants probably caused a particular harm. Thus, the U.S. now relies largely on the regulatory system to limit exposure to pollutants. Even then it may be difficult to determine precisely how stringently to regulate exposure to pollutants in the face of extravagant strategic behavior by regulated entities who make exaggerated ex-ante estimates of costs in hopes of forestalling more stringent regulation.

C. *The Precautionary Principle*

Perhaps the most misunderstood principle of environmental law is the Precautionary Principle. While its origins are often traced to German air pollution law in the 1980s,¹⁴⁴ it was articulated most powerfully in Principle 15 of the 1992 Rio Declaration, which states: "Where there are threats of serious or irreversible damage, lack of full scientific certainty shall not be used as a reason for postponing cost-effective measures to prevent environmental degradation."¹⁴⁵ Contrary to what some critics have argued,¹⁴⁶ the principle does not proscribe all actions that may pose a risk. In fact, as I have argued, the principle does *not* specify how precautionary regulatory policy should be.¹⁴⁷ Rather, it emphasizes that the existence of uncertainty should not block the taking of reasonable precautionary measures.¹⁴⁸

As noted above, the most significant judicial articulation of the precautionary principle in the U.S. is the *Ethyl Corporation* decision in 1976 that upheld EPA's initial limits on the amount of lead that could be added to gasoline.¹⁴⁹ After a three-judge panel of the U.S. Court of Appeals for the D.C. Circuit invalidated the regulations by a 2-1 vote, the full court by a 5-4 vote reinstated them.¹⁵⁰ The initial judicial panel found the case against leaded gasoline to be a "speculative and inconclusive one at best,"¹⁵¹ but the full court held that the standard of proof to uphold precautionary regulations issued under the Clean Air Act was much less than the standard required to prevail in a common law tort action.¹⁵² This decision reflected a sophisticated judicial appreciation of the shift away from

144. See Robert V. Percival, *Who Is Afraid of the Precautionary Principle?*, 23 PACE ENVTL L. R. 21, 23-24 (2006).

145. U.N. Conference on Environment and Development, *supra* note 5, at Principle 15.

146. See CASS R. SUNSTEIN, LAWS OF FEAR: BEYOND THE PRECAUTIONARY PRINCIPLE (2005).

147. See Percival, *supra* note 144, at 28.

148. *Id.* at 79-81.

149. See *Ethyl Corp. v. EPA*, 541 F.2d 1 (D.C. Cir. 1976) (en banc).

150. See *id.*

151. See *Ethyl Corp. v. EPA* ["Ethyl I"], 7 E.R.C. 1353 (D.C. Cir. Jan. 28, 1975), *reversed on rehearing en banc*, 541 F.2d 1 (D.C. Cir. 1976) (en banc)..

152. See *Ethyl Corp.*, 541 F.2d at 28.

individualized, common law actions to reliance on precautionary regulations issued by expert administrative agencies.¹⁵³ As a result of this decision, EPA was eventually able to develop the evidence that enabled it to ban lead from gasoline entirely, a policy that virtually all the world has now adopted, making it one of the most successful environmental regulations in world history.¹⁵⁴

Despite *Ethyl*, U.S. courts have an inconsistent track record in applying the Precautionary Principle, and fierce battles are regularly waged before reviewing courts over how much evidence must be provided to justify preventive regulations.¹⁵⁵ Four years after the *Ethyl* decision, a plurality of the U.S. Supreme Court directed regulatory agencies to perform risk assessments and to determine that risks were significant enough to warrant regulation, before issuing regulations.¹⁵⁶ Yet the Court twice refused to construe statutes to require the use of cost-benefit analysis unless specified by Congress in the underlying regulatory legislation.¹⁵⁷

In the 1984 *Chevron* decision, the U.S. Supreme Court instructed lower court judges to defer to reasonable agency interpretations of ambiguous statutory terms.¹⁵⁸ Now known as “*Chevron* deference,” this policy, at least in theory, should give environmental agencies more discretion. During a pro-environment administration, this should work in favor of environmental regulation, but it also could empower agencies less sympathetic to the environment to cut back on such regulations. One of the appealing aspects of *in dubio pro natura* (“when in doubt, favor nature”) and the non-regression principle, which have not yet achieved any traction in U.S. courts, is that they could restrict the ability of agencies to reduce environmental protections.¹⁵⁹

153. See ROBERT V. PERCIVAL, *AGAINST ALL ODDS: WHY AMERICA'S CENTURY-OLD QUEST FOR CLEAN AIR MAY USHER IN A NEW ERA OF GLOBAL ENVIRONMENTAL COOPERATION* (2016) (reviewing the history of this judicial trend).

154. Tsai & Hatfield, *supra* note 18, at 8 (estimating that the net benefits from the phasing-out of leaded gasoline range from \$2.05- to \$2.85 trillion/year).

155. See Robert V. Percival, *Risk, Uncertainty and Precaution: Lessons from the History of U.S. Environmental Law*, in *TRADE, HEALTH AND THE ENVIRONMENT: THE EUROPEAN UNION PUT TO THE TEST 25* (Marjolein B.A. van Asselt et al. eds., 2014).

156. See *Indus. Union Dep't AFL-CIO v. Am. Petrol. Inst.*, 448 U.S. 607 (1980).

157. See *Am. Textile Mfr. Inst. v. Donovan*, 452 U.S. 488 (1981) and *Whitman v. Am. Trucking Ass'n*, 531 U.S. 457 (2001).

158. See *Chevron U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837 (1984).

159. For background on these two principles, see Michael Prieur, *Non-regression in environmental law*, 52 S.A.P.I.E.N.S 53 (2012), <http://sapiens.revues.org/1405>; Marko Ahteensuu, *In Dubio Pro Natura? A Philosophical Analysis of the Precautionary Principle in Environmental and Health Risk Governance*, 20 U. TURKU REP. DEPT. PHIL. 1 (2008).

*D. Environmental Assessment and
Right-to-Know Requirements*

Environmental impact assessment (EIA) requirements have become the most ubiquitous feature of environmental law throughout the world. The notion that decisionmakers should "look before they leap" when making decisions likely to have significant environmental consequences is now a universally accepted principle enshrined in Principle 17 of the Rio Declaration.¹⁶⁰ However, officials are not the only ones who should be informed about environmental risks. Countries have been expanding information disclosure and right-to-know requirements to enable the public to be informed about the risks they face.

In 1986, the U.S. Congress enacted the Emergency Planning and Community Right-to-Know Act, which requires companies to make annual disclosures to the public about emissions and transfers of hundreds of toxic chemicals.¹⁶¹ The European Union (EU) and many other countries have similar disclosure requirements,¹⁶² and China recently required major polluters to make emissions data available to the public.¹⁶³ Transparency and public participation in decisions related to the environment is endorsed in Principle 10 of the 1992 Rio Declaration, which states that "each individual shall have appropriate access to information concerning the environment that is held by public authorities, including information on hazardous materials and activities in their communities, and the opportunity to participate in [decisionmaking] processes."¹⁶⁴

Governments also are moving to require greater pre-market testing of chemicals to improve the information available to regulatory authorities. The EU's Registration, Evaluation and Assessment of Chemicals (REACH) program requires extensive pre-market testing of chemicals.¹⁶⁵ Other countries have modeled their recent chemical control legislation on REACH, and even the U.S. EPA is poised to expand its chemical testing powers as a result of the enactment of the Frank R. Lautenberg Chemical Safety for the 21st Century Act.¹⁶⁶

160. U.N. Conference on Environment and Development, *supra* note 5, at Principle 17.

161. Emergency Planning and Community Right-to-Know Act § 11044, 42 U.S.C. § 11001 (1986).

162. EUROPEAN POLLUTANT RELEASE AND TRANSFER REGISTRY, <http://prtr.ec.europa.eu/#/home> (last visited Apr. 18, 2017).

163. Barbara Finamore, *A Step Forward for Environmental Transparency in China*, NRDC (Mar. 30, 2013), http://switchboard.nrdc.org/blogs/bfinamore/a_step_forward_for_environment.html.

164. U.N. Conference on Environment and Development, *supra* note 5, at Principle 10.

165. *See REACH*, EUROPEAN CHEMS. AGENCY, <https://echa.europa.eu/regulations/reach> (last visited Apr. 18, 2017).

166. Pub. L. 114-182, 130 Stat. 448 (2016).

Taken together, these developments are evolving in the direction of a principle reflected in the state of California's Safe Drinking Water and Toxic Enforcement Act, also known as Proposition 65.¹⁶⁷ This legislation, adopted by voter initiative in 1986, requires companies to warn people before exposing them to significant risks from exposure to carcinogens and reproductive toxins.¹⁶⁸ Although food industry groups in the U.S. fiercely oppose proposals to require labeling of foods containing genetically modified organisms (GMOs),¹⁶⁹ it is difficult to oppose the notion that people should have a right to know when they are exposed to substances that clearly pose risks to life and health. This should be considered an essential principle of environmental law.

E. Environmental Justice and Fairness

The concept that particular individuals or groups should not be disproportionately exposed to environmental risks has been championed by the environmental justice movement in the U.S. The movement arose in response to growing evidence that minorities and the poor were disproportionately exposed to such risks.¹⁷⁰ While the environmental justice movement has had little success in the courts, each federal agency in the U.S. is required by executive order to "make achieving environmental justice part of its mission" and to identify and address disproportionate exposure to risk.¹⁷¹

Despite the executive order, environmental justice still remains an elusive goal, as indicated by the lead in drinking water tragedy that occurred in Flint, Michigan. Flint is a majority black community with more than 40 percent of the population living below the poverty line.¹⁷² To save money, Flint's state-appointed city manager decided in April 2014 to shift the source

167. CAL. HEALTH & SAFETY CODE § 25249.5 (West 2016).

168. *Id.*

169. The state of Vermont has adopted legislation to require labeling of products with GMOs, but voter initiatives to require this in other states have been defeated. Labeling of Food Produced with Genetic Engineering Act (Vermont Act), VT. STAT. ANN. tit. 9 §§ 3041–3047 (West 2014); Suzanne Goldenburg, *Vermont Becomes First US State to Require GM Labelling for Food*, THE GUARDIAN (May 8, 2014), <https://www.theguardian.com/environment/2014/may/08/vermont-first-us-state-gm-labelling-food> (indicating voters in California and Washington State defeated GM labeling initiatives); Dana Times, *Measure 92, GMO-Labeling Initiative, Fails Narrowly: Oregon Election Results 2014*, OREGONLIVE (Nov. 5, 2014) http://www.oregonlive.com/politics/index.ssf/2014/11/measure_92_gmo-labeling_initia.html.

170. See PERCIVAL, ET AL., *supra* note 10, at 15–24.

171. Exec. Order No. 12,898, 59 Fed. Reg. 7629 (Feb. 11, 1994).

172. *Flint Water Crisis Fast Facts*, CNN LIBRARY (Feb. 22, 2017), <http://www.cnn.com/2016/03/04/us/flint-water-crisis-fast-facts/>.

of the city's water supply to the polluted Flint River.¹⁷³ Because Flint River water is highly corrosive, lead from pipes in Flint's water supply system leached into the drinking water, poisoning Flint residents.¹⁷⁴ Shockingly, after test data revealed the lead contamination, state and federal officials failed to inform Flint residents.¹⁷⁵ The Flint tragedy dramatically highlights an environmental justice problem—environmental risks continue to be disproportionately concentrated on poor and minority communities. Principles of fairness demand that environmental law and policy should seek to redress cases of disproportionate exposure to risk.

The principle that environmental law and policy should treat everyone fairly should also embrace those who are the targets of environmental regulation, including property owners. Those who argue that environmental regulation threatens property rights¹⁷⁶ have it backward. For centuries, environmental law has played a vital role in protecting property from particularly egregious invasions by pollutants and other sources of environmental harm.¹⁷⁷ When new regulations are promulgated, fairness demands that regulatory transitions should respect settled, investment-backed expectations. This does not mean that existing sources of pollution should be exempted indefinitely from new regulation; nor does it imply that government should compensate those who invested in dying industries. However, it does suggest that regulators need to be sensitive to the impact of regulation on property rights. In a dynamic market, regulatory changes nearly always will create some winners and losers. To maintain public support for environmental regulation it is vital that these effects be the result of fair processes and policies.

F. Other Emerging Principles of Environmental Law

Two other emerging principles of global environmental law have yet to win universal acceptance: non-regression and *in dubio pro natura*. The non-regression principle states that established environmental standards should not be relaxed.¹⁷⁸ The principle of

173. *Id.*

174. *Id.*

175. *Id.*

176. *See, e.g.,* TIMOTHY SANDEFUR & CHRISTINA SANDEFUR, CORNERSTONE OF LIBERTY: PROPERTY RIGHTS IN 21ST CENTURY AMERICA (2d ed., 2015).

177. *See* Aldred's Case (1610) 77 Eng. Rep. 816; 9 Co. Rep. 57b.

178. *See* Michael Prieur, *Non-Regression in Environmental Law*, 5.2 S.A.P.I.E.N.S 53, 54–55 (2012).

in dubio pro natura provides that in cases of uncertainty judges should resolve doubt by ruling in favor of the environment.¹⁷⁹

VIII. CONCLUSION

The history of global environmental law repeatedly has demonstrated the importance of the judiciary ensuring that “[o]rdinary citizens can, through legal process, make their governments protect the environment when that may be the last thing their governments want to do.”¹⁸⁰ Civil society is using a rich and evolving mix of strategies to hold businesses and governments accountable for environmental harm. At a time when some fossil fuel industries continue to promote junk science and economic fear-mongering to oppose sensible responses to climate change, the world needs more courageous judges who stand up for the environment. As countries expand the use of specialized environmental courts and programs that help judges appreciate the importance of environmental law, such as the Global Judicial Institute for the Environment, the global judiciary is becoming greener at a crucial time for influencing the future of the planet’s environment.

179. Ahteensuu, *supra* note 159, at 1.

180. HOUCK, *supra* note 53, at 176.

LOOKING TOWARD THE FUTURE OF JUDICIAL REVIEW FOR THE PUBLIC LANDS

ERIC BIBER*

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I. INTRODUCTION

Understanding how environmental law operates without courts depends in part in understanding what courts do and do not review. A government agency will consider the potential for judicial review in assessing what room for maneuvering it has in making a particular decision. Even if no litigation ever ensues, the shadow of judicial review can affect the options that an agency might consider.

Perhaps no part of environmental law makes this point clearer than the area that concerns the federal public lands. Federal public lands management is susceptible to ongoing, consistent swings in management philosophies depending on who is President: the shift from the Clinton Administration, to the George W. Bush Administration, back to the Obama Administration, and now to the Trump Administration. The President has significant power to shape public lands management—the Clinton Administration advanced the Roadless Rule, which set about 2 percent of the land area of the lower forty-eight states aside from commercial logging and road construction, while the George W. Bush Administration greatly expanded oil and gas leasing on federal public lands.

At the same time, the role that courts play in supervising public lands management has been highly contested, and it has led to some of the most significant Supreme Court cases assessing general principles of reviewability of agency decisions in administrative law: cases such as *Lujan v. National Wildlife Federation*,¹ *Summers v.*

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1. 497 U.S. 871 (1990).

Earth Island Institute,² *Ohio Forestry Association v. Sierra Club*,³ and *Norton v. Southern Utah Wilderness Alliance*.⁴

These disputes will not go away. The outgoing Obama Administration took significant steps to constrain fossil fuel leasing on federal public lands, responding to pressure from the “Keep It in the Ground” movement, which has called for terminating all future fossil fuel leasing programs on federal public lands.⁵ The incoming Trump Administration has emphasized expanding fossil fuel production on public lands. Litigation will surely ensue.

But I am more interested in the long view here. How has the possibility of judicial review shaped agency decision-making over the years, and what is the potential over the next ten to twenty years for the role of courts vis-à-vis land management agencies to change? And what lessons might fights over judicial review of federal public lands hold for administrative law more broadly?

One way of reading the case law on judicial review of federal public lands management is that the courts have given public lands agencies broad discretion to allow the development or degradation of those lands. But, while there is much truth to that view, I think it understates the ability of courts to dismiss challenges to agency decisions not to allow development. The view that reviewability case law benefits only development projects falls short in part because it focuses solely on the outcomes of the leading Supreme Court cases in the area, a focus that is misleading because of the nature of those cases and the agency decisions they involved.

II. WHY REVIEWABILITY MATTERS FOR AGENCIES

The presence or absence of the possibility of judicial review certainly matters for how agencies operate. Both agency officials and Congress act as if this fact is true. For instance, in order to facilitate U.S. Forest Service projects intended to reduce the risks of fire, Congress has imposed some significant limits on the ability of private parties to challenge those projects.⁶ Setting aside the difficult question of whether those projects really will work as

2. 555 U.S. 488 (2009).

3. 523 U.S. 726 (1998).

4. 542 U.S. 55 (2004).

5. *Keep It in the Ground*, GREENPEACE, <http://www.greenpeace.org/usa/global-warming/keep-it-in-the-ground/> (last visited Apr. 2, 2017); MICHAEL SAUL, TAYLOR MCKINNON & RANDI SPIVAK, CTR. FOR BIOLOGICAL DIVERSITY, GROUNDED: THE PRESIDENT'S POWER TO FIGHT CLIMATE CHANGE, PROTECT PUBLIC LANDS BY KEEPING PUBLICLY OWNED FOSSIL FUELS IN THE GROUND (2015) [hereinafter, CTR. FOR BIOLOGICAL DIVERSITY]; DUSTIN MULVANEY, ALEXANDER GERSHENSON & BEN TOSCHER, ECOSHIFT CONSULTING, THE POTENTIAL GREENHOUSE GAS EMISSIONS FROM U.S. FEDERAL FOSSIL FUELS 3–5 (2015).

6. See Healthy Forests Restoration Act of 2003, 16 U.S.C. §§ 6501, 6511, 6512, 6514, 6515, 6516 (2012).

intended,⁷ Congress added those limits because it believed the Forest Service would be more likely to aggressively pursue fire reduction projects if judicial review was limited. That is in part because, as the agency itself has noted, the agency responds to the possibility of judicial review by adding additional justifications and analyses to support its decision, something that costs money and time, and therefore reduces the total number of projects that can be funded by a set budget.⁸ But an agency that is concerned about the threat of judicial review will also be less likely to push the envelope in the substance of its decisions.

For example, consider the role that the Endangered Species Act (ESA) plays in agency decision-making.⁹ Federal agencies have to comply with a range of substantive and procedural requirements under the ESA.¹⁰ For a variety of reasons, these agencies have relatively limited leeway in how they interpret and implement the Act—in part because usually it is another, specialized federal agency (the U.S. Fish and Wildlife Service (FWS) or the National Oceanic and Atmospheric Administration (NOAA)) that does the primary analysis and legal interpretation, but also in part because any person can sue the federal agency for failure to comply with the ESA.¹¹ In addition, courts considering agency decisions under the ESA may be less likely to defer to the agency's own interpretation and analysis if it conflicts with the interpretation and analysis of FWS or NOAA. It is perhaps no surprise, therefore, that the ESA has been widely characterized as the “pit bull of environmental law” in its ability to shape agency decision-making¹²—indeed, litigation under the ESA was a significant part of the ending of the cutting of old growth forests by the Forest Service in the Pacific Northwest, despite a powerful political resistance.¹³ Because of the risk of citizen enforcement, agencies take their obligations under the ESA seriously—a point the Supreme Court itself has recognized.¹⁴

7. See Diana L. Six, et al., *Management for Mountain Pine Beetle Outbreak Suppression: Does Relevant Science Support Current Policy*, 5 FORESTS 103 (2014).

8. U.S. DEP'T OF AGRIC., FOREST SERV., THE PROCESS PREDICAMENT: HOW STATUTORY, REGULATORY, AND ADMINISTRATIVE FACTORS AFFECT NATIONAL FOREST MANAGEMENT 35–37 (2002), <https://www.fs.fed.us/projects/documents/Process-Predicament.pdf>.

9. 16 U.S.C. §§ 1531–44 (2012).

10. See *id.*; see also DALE GOBLE, ET AL., WILDLIFE LAW: CASES AND MATERIALS 1023–86 (3d ed. 2017) (covering the requirements that federal agencies must comply with under the Act).

11. See 16 U.S.C. § 1541(g)(1)(A) (2012).

12. Robert B. Keiter, *Of Gold and Grizzlies: A Tale of Two Laws*, 24 J. OF LAND, RESOURCES & ENVTL. L. 233, 235 (2004) (quoting citation omitted).

13. See Eric Biber, *Too Many Things to Do: How to Deal with the Dysfunctions of Multiple-Goal Agencies*, 33 HARV. ENVTL. L. REV. 1, 55–56 (2009).

14. *Bennett v. Spear*, 520 U.S. 154, 169 (1997) (noting how the ESA can have a “powerful coercive effect” on agencies).

III. THE SCOPE OF REVIEWABILITY IN FEDERAL PUBLIC LANDS MANAGEMENT

There are substantial limits on what kinds of public lands agency decisions might be subject to judicial review and on who can seek judicial review of public lands agency decisions. Again, both of these categories (but particularly the first one) have important ramifications beyond public lands.

A. Kinds of Decisions That Can Be Challenged

In terms of the kinds of agency decisions that are subject to judicial review, the Court has indicated that only specific agency decisions to act or not to act can be susceptible to judicial review. In *Lujan v. National Wildlife Federation*, the Court rejected a challenge by environmental groups to an agency “program” of reviewing whether federal lands should be opened to mining activities.¹⁵ Because the program was not a specific agency decision, but instead was an amorphous collection of thousands of individual agency decisions, the Court concluded that the program as a whole was not judicially reviewable.¹⁶ In *Norton v. Southern Utah Wilderness Alliance*, the Court considered a challenge to an agency’s alleged failure to prevent degradation of wilderness quality lands from off-road vehicle use;¹⁷ the relevant statute generally required the agency to prevent degradation but did not provide specific actions the agency was required to take to prevent degradation.¹⁸ Because the statute did not provide a specific, mandatory duty the agency was required to take, the Court concluded that it could not order the agency to take action, citing *Lujan* for the proposition that only agency failures to take specific, discrete actions were reviewable.¹⁹

The specific agency action requirement for judicial review has broad implications for judicial involvement in agency decision-making. By their very nature, federal public lands management agencies are involved in lots of mundane operational tasks—where to send law enforcement personnel, whether to maintain a trail, whether to require a grazing lessee to take steps to reduce impacts

15. 497 U.S. 871, 877–79 (1990).

16. *Id.* at 890 (stating that the plaintiffs could not “challenge the entirety of petitioners’ so-called ‘land withdrawal review program’ [because it was] not an ‘agency action’ within the meaning of [the Administrative Procedure Act (APA)]”). The APA provides for judicial review of “agency action” that is “final.” 5 U.S.C. § 704 (requiring agency action to be final in order for judicial review to occur). *See also* 5 U.S.C. § 702 (allowing for judicial review of “agency action” for parties “affected or aggrieved by agency action”).

17. 542 U.S. 55, 59–60 (2004).

18. *Id.* at 59, 65–66 (discussing 43 U.S.C. § 1782(c)).

19. *Id.* at 64–66.

on rangeland, and so on. By requiring plaintiffs to point to specific, particular agency decisions that they wish to challenge, the Court made it significantly more difficult for plaintiffs to challenge an aggregation of many small individual decisions, even when they might accumulate to have major impacts. Plaintiffs could, of course, seek to challenge each of the individual decisions, but that would be costly and difficult to do, and demonstrating how each individual decision “matters” on the ground would also be difficult, as it is the cumulative impacts that would matter most.

Reciprocally, requiring plaintiffs to identify specific actions they would force the agency to undertake also reduces the ability of plaintiffs to force agency action—that is in part because the statutes are much more likely to contain generalized obligations by the agency to do something than they are to contain specific actions that the agency is mandated to undertake. And even if a specific action is mandated in the statute, there is no guarantee that that specific action would actually be the best approach (from the plaintiff’s perspective) of forcing the agency to achieve the plaintiff’s goals. The insulation of generalized agency failures to act from judicial review makes it easier for agencies to allow on-the-ground changes to occur without agency intervention, even if those changes might violate statutory standards—so long as those changes are the result of impacts from actions of others besides the agency. For instance, and most relevant for the future, as climate change causes major changes in conditions on the ground on federal public lands, plaintiffs will often have little ability to force agencies to respond to those changed conditions, even if they may result in violations of different federal statutory standards.²⁰

These implications of the specific agency action requirement are no accident. It was concerns that allowing challenges to programs would entangle courts in “day-to-day” agency decision-making that the Court referred to in *Norton v. Southern Utah Wilderness Alliance* as the reason for the specific agency action requirement²¹—a requirement that is not explicitly in the text of the Administrative Procedure Act (APA) but is instead a gloss the Court has developed

20. See Elisabeth Long & Eric Biber, *The Wilderness Act and Climate Change Adaptation*, 44 ENVTL. L. 625, 688–89 (2014) (making this point in the context of wilderness management).

21. *Norton*, 542 U.S. at 65–66 (expressing concern that allowing judicial review of failures to implement general statutory duties would mean that “it would ultimately become the task of the supervising court, rather than the agency, to work out compliance with the broad statutory mandate, injecting the judge into day-to-day agency management”). The Court appeared to allude to similar concerns in *Lujan*, where it stated that the agency action requirement meant that plaintiffs could not seek “wholesale improvement of [a] program by court decree, rather than in the offices of the Department or the halls of Congress.” 497 U.S. 871, 891 (1990).

based on APA judicial review language.²² These concerns can be understood as a judicial reluctance to be involved in agency decisions about how to allocate resources among a wide range of different policy goals or ways to achieve policy goals.

A second major barrier to judicial review of particular kinds of public lands agency decisions is the requirement that an agency decision be “ripe” for judicial review. Ripeness is a general doctrine in administrative law that prohibits judicial review of agency decisions, even if they are specific and even if they might otherwise be final.²³ But it is a doctrine with particular importance in the public lands context, as the Supreme Court has held that ripeness generally prohibits judicial review of public lands management agency planning documents.²⁴ Most federal public lands statutes require land management agencies to develop plans for their lands. Similar to zoning law, these planning documents identify areas where certain activities can or cannot occur. They may also lay out a range of goals for public lands management for the next ten to fifteen years, minimum standards for activities that occur in the public lands, possible projects the agency would ideally pursue in the future, and coordination in space and time among the many different, potentially conflicting uses of the public lands.

In *Ohio Forestry Ass’n v. Sierra Club*, the Supreme Court held that, in general, these planning documents were not ripe for judicial review since they usually did not create a legal obligation for the agency to do or not do something.²⁵ For instance, in *Ohio Forestry Ass’n* environmental groups argued that the forest-planning document allowed too much timber cutting on the forest.²⁶ The Court argued that this kind of claim was not ripe because the plan did not actually require any timber cutting to occur²⁷ and a series of independent decisions by the agency were required even after the plan to determine whether any timber project would proceed.²⁸

22. The decision in *Lujan* was based on the Court’s interpretation of what the term “agency action” must require, rather than being based on the statutory definition of the term in the APA. Compare *Lujan*, 497 U.S. at 890–93 with 5 U.S.C. § 551(13) (defining agency action).

23. Finality is an explicit requirement of the APA for judicial review of agency decisions. 5 U.S.C. § 704.

24. See *Lujan*, 497 U.S. 871.

25. 523 U.S. 726, 733 (1998) (noting that the plans “do not command anyone to do anything or to refrain from doing anything; they do not grant, withhold, or modify any formal legal license, power, or authority; they do not subject anyone to any civil or criminal liability; they create no legal rights or obligations”).

26. *Id.* at 731.

27. *Id.* at 733 (stating that the plan “does not give anyone a legal right to cut trees, nor does it abolish anyone’s legal authority to object to trees being cut”).

28. *Id.* at 729–30 (listing the series of independent decisions).

Given the broad discretion that these statutes give to many public lands agencies to balance many different, potentially conflicting goals, the ripeness requirement can be understood as an effort to avoid entangling the courts in abstract policy disputes where there is little statutory guidance as to outcomes—and that was an important reason for the doctrine articulated by the Court in *Ohio Forestry Ass'n*.²⁹

Ripeness matters for public lands management because of the pervasiveness of planning requirements under federal public lands statutes. To the extent that planning helps drive much agency decision-making in the future, insulating planning decisions from judicial review might have a major effect on outcomes, albeit in a subtle manner. As with the specific agency action requirement, another major impact of the ripeness doctrine in the public lands context would be the limitations it places on the ability of plaintiffs to raise, and courts to consider, cumulative impacts of multiple smaller-scale, on-the-ground agency decisions. While the specific agency action requirement insulates many of those decisions by making it practically difficult for plaintiffs to challenge them, the ripeness requirement limits challenges to planning documents that—precisely because of their comprehensiveness—would serve well as a vehicle for judicial consideration of how aggregating many individual agency decisions cumulatively affects important resources.

In practice, the combination of the requirement that plaintiffs challenge specific agency actions and ripeness barriers to review can make it difficult for plaintiffs to enforce a range of statutory requirements against public lands agencies. For example, the National Forest Management Act (NFMA) requires that agency plans meet a number of minimum standards for environmental compliance, including protection of biodiversity, protection of water quality, and prevention of soil erosion.³⁰ However, the combination of the two doctrines of specific agency action and ripeness requires that environmental plaintiffs must focus on individual timber sale projects in their litigation. Challenges to plans are generally unavailable due to ripeness. But if the major impacts from timber sale projects are cumulative—e.g., how multiple timber sale projects

29. *Id.* at 736 (noting that review of unripe actions such as plans “threatens the kind of ‘abstract disagreements over administrative policies’ that the ripeness doctrine seeks to avoid”) (citation omitted). There are exceptions to the ripeness requirements for review of plans. Courts will review allegations of procedural errors in the development and promulgation of plans—most importantly including compliance with environmental review requirements under the National Environmental Policy Act (NEPA). *Id.* at 737. Courts will also review decisions in planning documents that will result in immediate on-the-ground impacts, such as opening or closing public lands to motorized vehicle use. *Id.* at 738.

30. 16 U.S.C. §§ 1604(g)(3)(B), (E)(i), (E)(iii) (2012).

in a National Forest collectively fragment and degrade habitat for old-growth forest species—then challenging individual timber sales may not be an effective approach either. After all, each individual project may not have a significant negative impact that a plaintiff can readily demonstrate to a court. But challenging the collection of timber projects may run into reviewability concerns if a court understands that challenge as a programmatic, rather than a project-specific, lawsuit.³¹ Of course, plaintiffs might try to aggregate multiple decisions into a single lawsuit, but that adds to complexity and cost—both based on gathering the relevant facts about the potential harms of a project and on the additional legal complexity of aggregating those kinds of claims.

B. Who Can Raise Challenges

Most significant in terms of limiting who can seek review of public lands management decisions are standing requirements. Plaintiffs have to demonstrate that they have specifically suffered or will suffer a concrete injury—a mere probability or likelihood of injury is usually insufficient.³² This requirement can make challenges to national regulations more difficult. For instance, in *Summers v. Earth Island Institute*, the environmental plaintiffs challenged whether a Forest Service revision to agency procedures for providing notice of proposed development projects was adequate.³³ When the agency resolved the dispute over the specific project that the plaintiffs had litigated and had established harmed their interests, the question arose about whether the plaintiffs could still challenge the national regulation that had been the basis for dozens of other agency projects.³⁴ While the dissent noted the near certainty that the plaintiffs had been specifically harmed by one of these other projects on a national basis, that was not enough for the majority, which held that the plaintiffs had to establish that a particular project had definitively harmed (or would harm) them.³⁵

Summers can be in part understood as requiring a particularized showing of harm based on a particular action in a particular place in order to meet standing requirements. So read, *Summers* is consistent with earlier Supreme Court case law that has required plaintiffs to demonstrate with geographic specificity that they have

31. See *Sierra Club v. Peterson*, 228 F.3d 559 (5th Cir. 2000) (*en banc*) (dismissing challenge to timber sales in Texas National Forests on grounds that the claims were not to a specific agency action, citing *Lujan v. Nat'l Wildlife Fed'n*, 497 U.S. 871 (1990)).

32. See generally *Massachusetts v. EPA*, 415 F.3d 50 (2007).

33. 555 U.S. 488, 490–92 (2009).

34. *Id.* at 496–500.

35. Compare *id.* at 505–10 (Breyer, J., dissenting), with *id.* at 496–500 (majority opinion).

been harmed by an agency action.³⁶ In *Lujan v. National Wildlife Federation*, the plaintiffs alleged that they suffered from aesthetic harms from the possible opening of millions of acres of federal lands to mining activities.³⁷ The Court held that these allegations were insufficient to support standing to challenge even individual decisions to open federal lands to mining because they were too generalized in space.³⁸

The practical significance of these standing barriers is twofold. First, they can facilitate the government's role, as a repeat litigation player, in strategically choosing which cases to pursue and which ones to settle. By settling cases with unfavorable facts that have implications for national regulations, the government can use standing barriers to prevent plaintiffs from challenging the underlying regulations.

Second, and similar to the ripeness and specific agency action doctrine above, this standing doctrine has the effect of moving litigation away from challenges to large-scale agency decisions or programs and towards individual agency actions. Again, this can make it more difficult for plaintiffs to challenge overall agency policies they dislike or to raise questions about the cumulative impacts of agency decisions.

The other major barrier that is based on the identity of the plaintiff is exhaustion requirements—plaintiffs must have participated in administrative processes around the land management decisions before they challenge those decisions in court. These requirements are based in specific statutes, not the default provisions of the APA.³⁹ Most prominent of these specific statutes imposing exhaustion requirements is the Healthy Forests Restoration Act (HFRA), which imposes strict exhaustion requirements on plaintiffs seeking to challenge forest restoration projects covered under the statute.⁴⁰

The practical implication of these exhaustion requirements is that they require additional investment of time and energy by plaintiffs when they challenge individual projects. Thus, they in effect complement the reviewability doctrines above—while those

36. For an overview of this case law, see Daniel A. Farber, *A Place-Based Theory of Standing*, 55 UCLA L. REV. 1505 (2008).

37. 497 U.S. 871, 886 (1990).

38. *Id.* at 887–89.

39. Those default provisions generally do not impose exhaustion requirements on plaintiffs, except when the agency requires by regulation that exhaustion occur and suspends the operation of the challenged decision until the administrative proceedings have completed. See 5 U.S.C. § 704 (2012). These regulatory requirements are relatively uncommon in public lands.

40. See 16 U.S.C. § 6515 (2012) (requiring parties seeking to challenge a project under the act to submit comments on the environmental analysis for the project and to participate in the predecisional administrative review process before they can litigate).

doctrines make challenging anything but individual, specific projects harder, the exhaustion requirements also raise the bar for challenging those individual, specific projects.⁴¹

IV. UNDERSTANDING THE IMPLICATIONS OF THE CASE LAW

As the overview of this case law makes clear, there is a lot of truth to the conventional wisdom. The Court and Congress have steadily erected barriers to challenges to federal public lands management agency decisions by plaintiffs—by channeling plaintiffs into challenges against individual projects and then (in certain circumstances) raising the barriers to challenges against individual projects as well. Moreover, all of the relevant Supreme Court cases have involved environmental groups challenging public lands management agency decisions. Thus, there is a story to be told about how reviewability doctrines are asymmetric, with environmental plaintiffs receiving the short end of the stick.

However, the nature of the litigation record is to some degree an artifact of who is in charge of the public lands and what kinds of options different interest groups choose to challenge public lands management decisions. The reviewability case law spans an arc over the past thirty-five years or so—of which about twenty years are covered by Republican presidencies, with the executive branch generally more favorable to development interests than environmental interests. In other words, for a good chunk of time in which the reviewability doctrines have developed, we have seen a lot of case law of environmental groups challenging public lands decisions precisely because that is the outcome of the political landscape.

Moreover, different interest groups may prefer to use different tools to challenge administrative agency decisions. While there are exceptions,⁴² in general, environmental groups have pursued litigation, while industry and development groups have pursued congressional action to challenge executive agency decisions they do not like. That is in part because of structural characteristics in Congress that favor development interests in Western states—small

41. The tightened exhaustion requirements are often combined with streamlined administrative and environmental review processes that reduce the ability of the public to participate in decision-making, as in HFRA. *See, e.g., id.* § 6514 (restricting scope of environmental review for certain Forest Service projects); *id.* § 6515(a)(2) (time frame for predecisional challenges to certain Forest Service projects).

42. For instance, in 2009 Congress enacted legislation allowing for expedited reversal of a George W. Bush Administration revision of ESA regulations. *See* Allison Winter, *Interior Sends Revised Endangered Species Rule to OMB*, N.Y. TIMES (Apr. 24, 2009), <http://www.ny-times.com/gwire/2009/04/24/24greenwire-interior-sends-revised-consultation-rule-to-om-10669.html>.

population Western states that continue to heavily rely on resource extraction for economic development all have two senators, outweighing more populous states with different preferences. It is also in part because during the past thirty-six years, there has only been four years in which there has been a Democratic president with a fully Democratic Congress;⁴³ industry and development interests have had capacity to use Congress to challenge presidential land management decisions. Finally, and most speculatively, industry and development interests may feel they have better potential to succeed through the use of appropriations riders and other legislative tools to overturn agency decisions they oppose, rather than litigation.

One reason industry and development interests might pursue legislative remedies more than litigation has to do with the underlying legal regimes for the public lands management agencies. In contrast to the reviewability doctrine, the underlying statutory provisions tend to weigh in favor of environmental interests rather than industry: the enforceable substantive standards tend to protect environmental interests, rather than industry or development interests.

As an example, consider an agency decision to lease a particular parcel of land under the Mineral Leasing Act (MLA).⁴⁴ The MLA gives agencies broad discretion about whether and how to lease federal public lands for mineral development (principally but not exclusively coal, oil, and gas).⁴⁵ Because of this broad discretion, the Supreme Court has dismissed challenges by industry to particularized decisions by agencies about whether to issue leases in specific places.⁴⁶ One lower court went so far as to hold that individual decisions not to lease are unreviewable because of the broad agency discretion whether to lease means plaintiffs have no standing.⁴⁷ On the other hand, an environmental group dissatisfied with an agency decision to lease a particular parcel of land would have a range of options to pursue—whether the agency properly complied with the environmental review requirements of NEPA, whether the agency's leasing decision is consistent with

43. More generally, in the past thirty-six years there have only been eight years of unified government.

44. 30 U.S.C. §§ 181–287 (2012).

45. *See id.* § 181; *see also* 30 U.S.C. § 189 (2012) (authorizing the Secretary of Interior “to do any and all things necessary to carry out and accomplish the purposes of this chapter”)

46. *See* *Udall v. Tallman*, 380 U.S. 1, 4 (1965); *see also* *Duesing v. Udall*, 350 F.2d 748 (D.C. Cir. 1965).

47. *See* *Marathon Oil Co. v. Babbitt*, 966 F. Supp. 1024, 1026 (D. Colo. 1997).

the underlying land management plans,⁴⁸ or whether there are endangered or threatened species in the area that receive protection under the ESA, among others.

In short, one reason that we see more environmental cases in which reviewability doctrines are applied to exclude environmental plaintiffs is that litigation provides more upside for environmental plaintiffs given the landscape of the relevant substantive law. But that does not tell us much about the extent to which those reviewability doctrines would, or would not, apply to industry challenges to an adverse land management decision.

In fact, there is no reason to think that these reviewability doctrines would not have as much bite for industry plaintiffs as for environmental plaintiffs. For instance, consider a Forest Service regulation that provided substantial, additional public notice and comment provisions before the issuance of a timber sale contract. The effect of the regulation is to substantially raise the costs of timber sales for the agency, making them less likely to occur. For one thing, it would be difficult for a timber industry association to establish standing to challenge the regulation, because it would have to establish that (a) there was a particular timber sale that did not occur because of the regulation, and (b) one of the association's members would have received the sale. That would be exceedingly difficult to accomplish, especially given the standing rules established in *Summers*.⁴⁹ Similarly, a planning document that significantly reduced the total acreage available for logging would likely be unreviewable as unripe.⁵⁰

V. LOOKING TOWARD THE FUTURE

One plausible prediction for the next four to eight years is that it will recapitulate much of the prior twenty years—a swing in

48. 43 U.S.C. § 1732(a) (2012) (requiring agency to manage public lands “in accordance with . . . land use plans”).

49. *See, e.g.*, *Fed. Forest Res. Coal. v. Vilsack*, 100 F. Supp. 3d 21, 42–44 (D.D.C. 2015) (rejecting challenge by industry to revisions of planning rule issued by Forest Service because plaintiffs could only provide speculation that rule would reduce timber production, citing *Summers v. Earth Island Inst.*, 555 U.S. 488 (2009)).

50. This would be particularly true if the plan kept the same total amount of timber that was predicted to be harvested, as required under 16 U.S.C. § 1611(a). This level is a ceiling of total timber production that can occur on the forest in the next ten-year period, so if that ceiling is not lowered, there would be no on-the-ground decision for timber interests to challenge in the plan, so long as some land was still available for harvest. However, if a plan did reduce the total amount of timber that can be harvested from a forest, that might create standing and a reviewable decision. *See e.g.*, *Mountain States Legal Foundation v. Glickman*, 92 Fd.3d 1228, 1335–38 (D.C. Cir. 1996) (finding standing for timber industry challenge to forest plan that reduced total amount of timber to be harvested from national forest).

the pendulum of public lands management as one administration replaces another.

But what about longer term? Understanding the long-term imperative of reducing fossil fuel consumption and combustion to address climate change, policymakers will have to consider steps to keep coal, oil, and natural gas in the ground rather than in the atmosphere. This is the basis for the “Keep It in the Ground” movement, which has pursued its objectives through lobbying and litigation.⁵¹ Activists have argued that the President, through unilateral authority, can terminate the issuance of new fossil fuel leases.⁵²

To what extent would those decisions be judicially reviewable? If the agency follows the right procedural steps—in particular NEPA review and requirements that the agency report relevant decisions to Congress⁵³—then it is not clear that they would be reviewable at all. This might be particularly true if the agency framed its policy as a series of independent, individual, low-level decisions—similar to how the Reagan Administration conducted its review of whether public lands should be open to mining in the early 1980s. Individual decisions about whether to lease individual parcels seem like the quintessential “day-to-day” management decision that courts have said they should not become entangled with. Certainly, challenging such a program would run into questions about whether the challenge would be barred by *Lujan*. And a challenge to an overall agency decision about whether and how much to lease public lands for fossil fuels also seems like the kind of abstract policy decision that the Court in *Ohio Forestry Ass’n* cautioned courts against getting involved in. In other words, when the inevitable time comes when the public lands pendulum swings again and agencies are considering major steps to restrict development—particularly fossil fuel leasing—on public lands, the reviewability doctrines may protect those agencies as much then as they do now.

51. *Keep It in the Ground*, *supra* note 5.

52. *See* CTR. FOR BIOLOGICAL Diversity, *supra* note 5.

53. *See, e.g.*, 43 U.S.C. § 1714(c) (requiring reporting requirements to Congress for Bureau of Land Management decisions to exclude one or more major uses from public lands). For an overview of the process, see generally Thomas R. Delehanty, *Executive Authority to Keep It in the Ground: An Administrative End to Oil and Gas Leasing on Federal Land*, 35 UCLA J. ENVTL. L. & POL’Y (forthcoming 2017).

VI. CONCLUSION—BROADER LESSONS FOR ADMINISTRATIVE LAW

The public lands reviewability cases also have broader lessons for the field of administrative law. Cases such as *Lujan v. National Wildlife Federation* and *Norton v. Southern Utah Wilderness Alliance* highlight important questions about the proper role of courts in “day-to-day” agency management. It is unclear the extent to which the APA was really intended or designed to deal with these kinds of issues. Much of the APA focuses on procedure and judicial review for high-stakes decisions to permit an individual party to do something (through licensing) or to control how a group of parties do something (through rulemaking). This is consistent with the standard theory of the APA as legislation that was focused on the disputes between New Deal regulatory agencies and the interests of regulated parties subject to a range of economic regulatory programs.⁵⁴

The APA talks a lot less about how the agency constrains itself and manages its own operations. Indeed, the APA in theory exempts agency internal procedural regulations from notice-and-comment procedural requirements, and it also has an exemption from those notice-and-comment requirements for regulations concerning public property, grants, and administration.⁵⁵ A focus on specific agency action—the need to challenge individual agency decisions rather than attacking an agency’s entire policy program—makes much more sense when the purpose of the APA is to guide or constrain individual licensing or regulatory decisions vis-à-vis regulated entities, decisions that have significant economic stakes.

But we are now into a new century in which human impacts on the planet become more and more pronounced and more and more significant. Many of those impacts are the result of the accumulation of a wide range of individually small but collectively significant activities.⁵⁶ Leasing of federal public lands for fossil fuel development has obvious implications for climate change. But there are many more decisions that are smaller scale but are also important. For instance, decisions about whether, when, and how to harvest trees from forests have implications for the ability of those forests to store and sequester carbon, and therefore these

54. See MARTIN SHAPIRO, WHO GUARDS THE GUARDIANS? JUDICIAL CONTROL OF ADMINISTRATION 38–44 (1988).

55. See, e.g., 5 U.S.C. § 553(a)(2) (2012) (exempting from procedural requirements for rulemaking agency decisions “relating to agency management or personnel or to public property, loans, grants, benefits or contracts”); *id.* § 553(b)(3)(A) (exempting from notice and comment requirements for rulemaking “rules of agency organization, procedure, or practice”).

56. See Eric Biber, *Law in the Anthropocene Epoch*, 106 GEO. L.J. (forthcoming 2017).

decisions have important relevance for climate change. Grazing practices on rangeland may affect the ability of the soil to store carbon. And so on.

It is therefore harder and harder to identify decisions that are *de minimis* relative to the global challenges we face—the stakes will be higher for each of these small scale decisions as time goes on. That will put more and more pressure for a wide range of parties to challenge these decisions in court—putting pressure on an administrative law system that was more focused on major decisions rather than day-to-day management. Courts will have to decide whether they want to be drawn in or stay out.

JUDICIAL REVIEW FOR THE PUBLIC LANDS: COMMENT TO ERIC BIBER

SHI-LING HSU*

Eric Biber's contribution to this *Environmental Law Without Courts* Symposium is, as he always is, insightful and lucid. His observations on how judicial review directly and indirectly affect administrative agency practices get to the crux of why we organized this symposium at Florida State—understanding those things that happen inside of administrative agencies and outside of judicial review. The applicability of this phenomenon to public lands management is especially instructive because of the nature of those industries that lease federal public lands. As it turns out, the prospect of judicial review—as well as the lack thereof—casts a long shadow indeed on the practices of administrative agencies managing federal public lands.

Biber's article reviews two ways in which case law has limited the scope and intrusiveness of judicial review: (i) requiring judicial challenges to address *specific agency actions*, rather than broader programmatic ones, and rather than agency *inactions*, and (ii) imposing barriers in the form of standing requirements for plaintiffs. Biber is doubtful that these limits systematically discriminate against environmental organizations as plaintiffs, as there are a number of structural reasons that better explain the fact that environmental organizations are more commonly plaintiffs and, therefore, more frequently losers in litigation. It thus seems more appropriate to consider, as Biber does, the long-term implications of the relevant case law and the trends therein. What indeed, as Biber asks, "is the potential over the next ten to twenty years for the role of courts vis-à-vis land management agencies to change?"¹

The potential is great. It is hard to forecast, as the relationship between courts and federal land management agencies surely depends to some extent on political, geopolitical, and ecological conditions that seem increasingly chaotic these days. While the judiciary is obviously not an explicitly political body, it would be naïve to think that, at least from a descriptive point of view, judges would truly stand by and let Rome burn. The seemingly accelerating effects of climate change, the election of President Donald Trump, and the volatile and shifting allegiances among nations all have the

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1. Eric Biber, *Looking Toward the Future of Judicial Review for the Public Lands*, 32 J. OF LAND USE & ENVTL. L. 359, 360 (2017).

potential to affect the way that the American judiciary views its role in an American democracy—if it in fact remains a democracy.

I have two comments on Biber's contribution, neither of which is a direct challenge, except insofar as to suggest that his summary of the case law might be subject to change in a dramatically climate-changed world, an emerging authoritarian dystopia, or a radically different world order. If anything, I hope Biber, as a leading theoretical and practicing scholar of public land management, would take these comments as an invitation to take a more normative tone in his work in this area.

My first comment is that it is troubling that courts have shied away from review of programmatic agency decisions. One can readily understand the administrative law tradition of leaving agencies to freely make the larger, technically difficult policy decisions without the threat of litigation. It also makes more sense jurisprudentially, as courts should only be adjudicating choate actions and injuries, not grand plans and vague harms. But it may be just as important, and perhaps more important, for courts to have an oversight role because programmatic decisions play a very large role in shaping broad patterns of capital investment, much more so than the day-to-day decisions that courts seem more willing to review. The Northern Great Plains Resources Program² helped usher in an era of unprecedented mineral exploitation, one that continues to reshape the landscape decades after its initiation. The low sulfur content of this Western coal,³ less environmentally harmful than that mined in the Midwestern and Appalachian U.S., coupled with the Clean Air Act sulfur dioxide emissions trading program, led to an explosion of mining activity that has reshaped the economies of the Northern Great Plains states.⁴ As we all know, the twilight of this era of coal mining has been brought about not by regulation or by recognition of the social costs of coal combustion, but by the emergence of cheap natural gas by hydraulic fracturing, which has itself become a transformative industry.

There is a certain path-dependence to the development of fossil fuel industries, which tend to be highly capital-intensive. Programmatic decisions establish the conditions under which large amounts of capital are mobilized. Once mobilized, the owners of this capital yearn to deploy it, repeatedly and broadly. What was the effect of the Northern Great Plains Resource Program?

2. U.S. ENVTL. PROT. AGENCY, ROCKY MOUNTAIN-PRAIRIE REGION, NORTHER GREAT PLAINS RESOURCES PROGRAM, ACCOMPLISHMENT PLAN (1974).

3. U.S. DEP'T OF ENERGY, ENERGY INFO. ADMIN., U.S. COAL RESERVES: AN UPDATE BY HEAT AND SULFUR CONTENT ix-xi (1993).

4. Daniel J. Daly, *Coal*, ENCYCLOPEDIA OF THE GREAT PLAINS, <http://plainshumanities.unl.edu/encyclopedia/doc/egp.ind.014> (last visited Apr. 2, 2017).

It was the large-scale development of fossil extraction resources with massive amounts of capital investment. Conservatively, producing the roughly 400 million tons of coal from the Powder River Basin⁵ requires a capital outlay of \$5.4 billion as a start-up cost for a mine that would last about thirty years.⁶ This kind of money will not be easily stranded. The stakes for programmatic decisions are thus much greater than those deemed to be “specific” agency actions, those more susceptible of judicial challenge.

Why does capital-intensity in fossil fuel industries create such path-dependency? The answer is a political-economic one. Expensive capital investments create their own political economies. Making money extracting fossil fuels is a volume business, dependent upon the freedom to operate expensive pieces of machinery for extended periods of time to extract amounts of fossil fuel of low value relative to the machinery. Fossil fuel extraction is only profitable when it can deploy large amounts of expensive capital for long periods of time without interruption from pesky regulators.

One obvious answer to my argument is that if there are social costs or environmental externalities associated with operating this expensive capital, we have environmental laws, tort laws, and other public laws that serve to internalize externalities. Private capital investors run the risk of running afoul of these public laws should their capital be deemed in the future to impose social costs.

How well has that model of *ex post* regulation worked out? Heroically, perhaps, but insufficiently. The reality is, especially given the political structure that favors Western extraction interests, that a capital investment in fossil fuel extraction is a commitment of resources that is irreversible. Politically speaking, capital investments in fossil fuel extraction are too big to fail.⁷ What is sorely needed is some sobriety before huge amounts of private capital are committed to some socially risky venture.

5. U.S. DEP'T OF ENERGY, U.S. ENERGY INFO. ADMIN., ANNUAL COAL REPORT 2015 3 tbl.1 (2016), <http://www.eia.gov/coal/annual/pdf/acr.pdf>.

6. The startup capital cost of a typical 5,000 tonnes/day (about 5,500 tons/day) surface coal mine is approximately \$19 million, exclusive of transportation and processing. InfoMine, *Mining Cost Models, 5,000 Tonne per Day Open Pit Mine Model*, COSTMINE, <http://costs.infomine.com/costdatacenter/miningcostmodel.aspx> (last visited Apr. 2, 2017). The cost model assumes a very low stripping ratio, or amount of soil to be removed from above a mined resource, and it is likely that larger mines would have larger capital costs.

7. See generally Juliet Eilperin, Steven Mufson & Philip Rucker, *The oil and gas industry is quickly amassing power in Trump's Washington*, WASH. POST (Dec. 14, 2016), https://www.washingtonpost.com/politics/the-oil-and-gas-industry-is-quickly-amassing-power-in-trumps-washington/2016/12/14/0d4b26e2-c21c-11e6-9578-0054287507db_story.html?utm_term=.5a0efefcc6c5.

The "Keep it in the Ground" movement, a push to unilaterally terminate mineral leasing on federal lands altogether,⁸ would seem to be a programmatic decision. But the key difference between the "Keep it in the Ground" movement and a programmatic decision to lease is the option value of not leasing. Everyone can see the ecological irreversibility in leasing: once coal, oil, or gas is extracted, there is no putting it back. Reabsorption of combusted carbon dioxide takes place on geologic time scales that are irrelevant to humankind. By contrast, leaving it in the ground preserves the option of extraction and combustion at a later date.

But in addition to this irreversibility, we generally overlook another one that pertains not to extraction, but to the capital investment. Once a programmatic decision to lease is made, vast sums of money are spent to extract fossil fuels; invested as they are in equipment that is very specific to the task of extracting fossil fuels, this money cannot be *unspent*. Leaving it in the ground retains the option value of later investing the money. Going slowly always seems to be a sensible idea when confronted with uncertainties. Unfortunately, the scale economy business of fossil fuel extraction works best not when going slowly, but when going full bore.

This leads me to my second comment, one that is not addressed by Biber's article: the increased importance of National Environmental Policy Act (NEPA) review and the need for courts to undertake a more searching review of projects that involve an "irreversible or irretrievable commitment of resources."⁹ Again, irreversibility is considered in ecological terms. In the Bureau of Land Management's (BLM) Environmental Impact Statement (EIS) for the Overland Pass Pipeline Project, the BLM writes, on the subject of irreversible/irretrievable commitments:

An irreversible or irretrievable commitment of resources refers to impacts on or losses to resources that cannot be recovered or reversed. Examples include permanent conversion of wetlands, or loss of cultural resources, soils, wildlife, agricultural, and socioeconomic conditions. The losses are permanent. Irreversible is a term that describes the loss of future options. It applies primarily to the effects of *use* of nonrenewable resources, such as minerals or cultural resources, or to those factors, such as soil productivity, that are renewable only over long periods of time. . . .

8. See Biber, *supra* note 1, at 360 n.5.

9. National Environmental Policy Act, § 102(C)(v), (1970), 42 U.S.C. § 4332(C)(v) (1970).

The monetary investment by Overland Pass is *not* considered to be an irreversible or irretrievable commitment of resources. If this project was not built, the investment that would have otherwise been spent on these projects could be spent elsewhere.¹⁰

Similarly, the Final Programmatic EIS for the 2012-2017 Outer Continental Shelf Oil and Gas Leasing Program provides that “the consumption of fuels during exploration, construction, production, and decommissioning would represent an irreversible and irretrievable commitment. The offshore oil and natural gas resources recovered as a result of the proposed action would be irretrievable once they are consumed.”¹¹ The Programmatic EIS goes on to state that biological resources may, of course, also be irreversibly or irretrievably committed before an EIS, in contravention of NEPA.¹²

My argument is that this is an insufficient way of looking at irreversibility. Monetary investments *are* irreversible to some extent, just because of the politics of large expenditures of money. The fiction that large private expenditures are solely the business of the private investors is the exact reason why economic investments should be a legitimate source of inquiry in reviewing programmatic decisions under NEPA.

This might seem an odd line of inquiry to take under NEPA, or for a reviewing court to undertake, since courts don’t typically engage in economic analysis in reviewing agency decisions. But how is that different from engaging in the ecological analysis required of courts under NEPA? Are judges any less expert in economic matters than they are in ecological ones?

The whole point of NEPA is to be proactive. NEPA requires that agencies evaluate the cumulative impact of “reasonably foreseeable future actions regardless of what agency (Federal or non-Federal) or person undertakes such other actions,”¹³ and to include “similar actions, which when viewed with other reasonably foreseeable or proposed agency actions, have similarities that provide a basis

10. U.S. DEP’T OF INTERIOR, BUREAU OF LAND MGMT., OVERLAND PASS NATURAL GAS LIQUIDS PIPELINE FINAL ENVIRONMENTAL IMPACT STATEMENT 7-1 (2007) (emphasis added).

11. U.S. DEP’T OF INTERIOR, BUREAU OF OCEAN ENERGY MGMT., OUTER CONTINENTAL SHELF OIL AND GAS LEASING PROGRAM: 2012-2017: FINAL PROGRAMMATIC ENVIRONMENTAL IMPACT STATEMENT 7-1 (2012), https://www.boem.gov/uploadedFiles/BOEM/Oil_and_Gas_Energy_Program/Leasing/Five_Year_Program/2012-2017_Five_Year_Program/07_Irreversible.pdf.

12. *Id.* at 7-2.

13. 42 C.F.R. § 1508.7 (2012); *Summary of the National Environmental Policy Act*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/laws-regulations/summary-national-environmental-policy-act> (last visited Apr. 2, 2017) (“NEPA’s basic policy is to assure that all branches of government give proper consideration to the environment prior to undertaking any major federal action that significantly affects the environment.”).

for evaluating their environmental consequences together”¹⁴ So why would reviewing agencies not consider the reasonably foreseeable private capital decisions made by private investors? Certainly, the behavior of the fossil fuel industries is predictable. Making some fairly obvious suppositions should not be outside of the realm of inquiry for agencies, nor for courts.

Legal rules and institutions seem to embody an idea that capital investment is an unalloyed good. Government policy should take great pains to avoid interfering with the long-term operation of capital, lest it discourage investment and unwittingly tamp down economic activity and growth. If there are any latent or future negative externalities associated with the operation of that capital, that is a public law matter; we leave that to the business of environmental law, tort law, or whatever body of law it is that might address the externality. One thing that agencies can and should do is undertake a more searching inquiry into some fairly predictable actions that might be undertaken by private investors in light of their land use management decisions, even programmatic ones. To be sure, this would not initially be environmental law “without courts.” But if the point of this conference is to highlight some agency practices that might thrive without judicial supervision, then this is one conceptual step that seems worth contemplating.

14. *Id.* § 1508.25(a)(3).

**FEDERAL FISHERIES MANAGEMENT:
A QUANTITATIVE ASSESSMENT OF
FEDERAL FISHERIES LITIGATION SINCE 1976**

ROBIN KUNDIS CRAIG* AND CATHERINE DANLEY**

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I. INTRODUCTION

Unlike many federal environmental and natural resources laws, Congress actually designed federal fisheries management under the Magnuson-Stevens Fisheries Conservation and Management Act (Magnuson-Stevens Act) to operate as environmental law without the courts. Instead, as two attorneys for the National Oceanic

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and Atmospheric Administration (NOAA)¹ have explained, “[t]he Magnuson-Stevens Act is designed to encourage user-group self-regulation within legislatively prescribed scientific and policy-based parameters.”² Indeed, some commentators continue to view the administrative realm as the only proper jurisdiction for fishery management decisions.³

Protecting the U.S. fishing industry was clearly a main goal of Congress in 1975 and 1976 as it considered enacting the Magnuson-Stevens Act. The House of Representatives, for example, described fisheries in U.S. waters as improperly managed common-pool resources, with the resulting scramble for fish destroying the economic value of most U.S. fisheries.⁴ International fisheries agreements were inadequate to fix these problems.⁵ As a result, the House concluded:

1. NOAA is located within the U.S. Department of Commerce and houses the National Marine Fisheries Service (NMFS), now known as NOAA Fisheries, the federal agency that most directly implements the Magnuson-Stevens Act. *About Us*, NOAA FISHERIES, <http://www.nmfs.noaa.gov/aboutus/aboutus.html> (last visited Apr. 2, 2017).

2. Marian Macpherson & Mariam McCall, *Judicial Remedies in Fisheries Litigation: Pros, Cons, and Prestidigitation?*, 9 OCEAN & COASTAL L.J. 1, 4 (2003).

3. See, e.g., Joseph A. Farside, Jr., Comment, *Atlantic States Marine Fishery Commission: Getting a Grip on Slippery Fisheries Management*, 11 ROGER WILLIAMS U.L. REV. 231, 264–65 (2005) (advocating an administrative appeals process for the Atlantic States Marine Fishery Commission to “keep contentious fishery management issues, especially those regarding allocation, out of courts and in the hands of fishery managers where they belong. Fishery managers frequently struggle with litigation that delays the fishery management process, and an effective appeals process within the ASMFC would eliminate much of the need for parties to litigate management issues.”); *Symposium on the Costs and Benefits of Litigation in Fishery Management: Editor’s Foreword*, 7 OCEAN & COASTAL L.J. 1, 1 (2001) [hereinafter *Editor’s Foreword*] (“To some observers, courts are becoming too engrossed in the fishery management process and in making management decisions, which should be left to the specialized and technical expertise of the fishery management agencies. Agency decision-making has been tainted by a general fear of litigation.”).

4. Thus:

There is little doubt that with some species (haddock, for example) the intense foreign effort has resulted in biological overexploitation and considerable economic waste for the domestic fishing industry. However, the high rate of foreign fishing, the old age of vessels and crewmen, and the low earnings to labor and capital in certain fisheries are primary symptoms rather than causes. That is, these are characteristic of a common property resource in which there is no ownership of the resource and thus entry (either by foreign or domestic interests) into the fishery takes place as long as there is economic rent or profit to be earned. This means that in any fishery, unless there are restrictions on entry, fishing effort tends to increase to a level where average profits—or economic rent attributable to the resource—is dissipated. Therefore, while some vessels in each fishery earn a profit, the tendency is toward zero profits, with the result being old crewmen and vessels and low earnings to labor and capital.

H.R. REP. NO. 94-445, at 1081 (1976), as reprinted in 1976 U.S.C.A.N. 593, 602–03.

5. *Id.* at 1093.

the depletion of these stocks is in large measure attributable to the phenomenal increase in recent years in the number of technologically sophisticated and very efficient foreign fishing vessels in waters off United States coasts, and that if such fishing pressure is not regulated and reduced immediately, irreversible damage may well be done to important fish stocks and to American fishing interests alike.⁶

The House also conceived of federal fisheries management as primarily a science-based administrative assessment focusing on maximum sustainable yield and optimum yield.⁷ “Maximum sustainable yield” was a term-of-art concept that Congress borrowed directly from fisheries biology, which reflects “the biological well-being of the fishery.”⁸ “Optimum sustainable yield” (later codified as “optimum yield”⁹), in turn, was the more political concept and:

takes into account the economic well-being of the commercial fishermen, the interests of recreational fishermen, and the welfare of the nation and its consumers. The optimum sustainable yield of any given fishery or region will be a carefully defined deviation from MSY in order to respond to the unique problems of that fishery or region.¹⁰

As further evidence of federal fisheries management’s “law without courts” leanings, unlike the vast majority of federal environmental and natural resources statutes that Congress enacted in the 1970s, the Magnuson-Stevens Act contains no citizen-suit provision allowing for citizen enforcement of its provisions in the courts.¹¹ Notably, the House of Representatives in 1975 did not mention courts or judicial review at all, except in connection with enforcement actions against individuals and businesses, where due process concerns mandate access to judicial processes.¹² In addition, at least as originally conceived, the Act provides relatively limited fodder for lawsuits under the federal Administrative Procedure Act’s (APA) judicial review provisions,¹³ and it expressly limits

6. *Id.* at 1095.

7. *Id.* at 1098.

8. *Id.* at 1099.

9. 16 U.S.C. § 1851(a)(1) (2012).

10. H.R. REP. NO. 94-445, at 1099 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 593, 616.

11. *See, e.g.*, *Hallstrom v. Tillamook County*, 493 U.S. 20, 23 n.1 (1989) (listing a number of federal statutes with citizen suit and notice requirements, but not including the Magnuson-Stevens Act).

12. *See, e.g.*, H.R. REP. NO. 94-445, at 1125–30 (1976), *as reprinted in* 1976 U.S.C.C.A.N. 593, 641–45 (discussing the 1976 Act’s enforcement provisions).

13. 5 U.S.C. §§ 701–706 (2012). *See* Macpherson & McCall, *supra* note 2, at 4–5 (emphasizing the broad discretion that both Fishery Management Councils and the Secretary

judicial review under the APA of the Secretary of Commerce's regulations implementing the Act.¹⁴

Indeed, as Part IV will discuss in more detail, much of the fisheries-related litigation that *has* occurred in the federal courts has been based on *other* statutes that federal fisheries management can trigger¹⁵—for example, the National Environmental Policy Act (NEPA),¹⁶ the Regulatory Flexibility Act,¹⁷ or the Endangered Species Act¹⁸—rather than the Magnuson-Stevens Act itself. In addition, some particularly troublesome fisheries—such as the summer flounder fishery in the mid-Atlantic region,¹⁹ the West Coast groundfish fishery,²⁰ or the many fisheries governed by the Northeast Multispecies Fishery Management Plan²¹—have prompted decades of litigation through multiple lawsuits and pursuant to multiple statutes. Thus, at least from the perspective of environmental plaintiffs, the Magnuson-Stevens Act has not been nearly as effective a litigation breeder with respect to federally managed fisheries as more traditional environmental statutes.

This article seeks to quantify the amount and types of litigation that *have* occurred under the Magnuson-Stevens Act, focusing on whether progressive and substantial amendments to the Act in 1996 and 2006 seem to have affected litigation patterns. To set the stage for this quantitative analysis, Part II examines in some detail the original provisions of the 1976 Fishery Conservation and Management Act, the 1996 Sustainable Fishery Act amendments, and the 2006 Magnuson-Stevens Fishery Conservation and Management Reauthorization Act. Part III, in turn, reviews previous

of Commerce have under the Magnuson-Stevens Act and the limited grounds available for disapproving Council management plans).

14. PUB. L. NO. 94-265, § 305(d), 90 Stat. 331 (1976) (codified at 16 U.S.C. § 1855(d)) (requiring petitions for review to be filed within 30 days and making inapplicable the APA's provisions, see 5 U.S.C. §§ 705–706, for judicial relief pending review, substantial evidence review, and review based on actions “unwarranted by the facts”).

15. Macpherson & McCall, *supra* note 2, at 7–8.

16. 42 U.S.C. §§ 4321–4370h (2012). For an example of federal fisheries litigation based primarily on NEPA, see *Pacific Coast Federation of Fishermen's Ass'ns. v. Blank*, 693 F.3d 1084, 1097–1104 (9th Cir. 2012) (holding that Fishery Management Plan amendments had complied with NEPA).

17. 5 U.S.C. §§ 601–612 (2012). For an example of federal fisheries litigation based primarily on the Regulatory Flexibility Act, see *Little Bay Lobster Co. v. Evans*, 352 F.3d 462, 470–72 (1st Cir. 2003) (holding that NMFS had complied with the Act).

18. 16 U.S.C. §§ 1531–1544 (2012). For an example of fisheries litigation based primarily on the Endangered Species Act, see generally *Greenpeace v. Nat'l Marine Fisheries Serv.*, 80 F. Supp. 2d 1137 (D. Wash. 2000) (involving the North Pacific groundfish fishery's impacts on the endangered Steller sea lion).

19. Macpherson & McCall, *supra* note 2, at 21–33.

20. *Id.* at 46–51. See also Suzanne Iudicello & Sherry Bosse Lueders, *A Survey of Litigation Over Catch Shares and Groundfish Management in the Pacific Coast and Northeast Multispecies Fisheries*, 46 ENVTL. L. 157, 184–90 (2016) (describing litigation in the Pacific groundfish fishery).

21. Iudicello & Lueders, *supra* note 20, at 173–84.

perceptions and analyses of Magnuson-Stevens Act litigation, noting that this literature clearly identifies the 1996 Sustainable Fishery Act as a turning point in that litigation. Part IV presents our quantitative analysis based on a thorough Westlaw review of decided federal fisheries cases from 1976-2016, confirming that the Sustainable Fisheries Act's enactment does correlate to a significant increase in federal fisheries litigation but also noting that the primary litigants under the Magnuson-Stevens Act itself remain fishers. We conclude that increased statutory mandates for environmental protection, increased fisheries enforcement efforts, and increased use of limited access fisheries are likely explanations for the increase in litigation directly related to fisheries management but that our initial research, while revealing, would benefit from deeper contextualization.

II. FEDERAL FISHERIES MANAGEMENT LEGISLATION

The federal government manages fisheries through the Magnuson-Stevens Fishery Conservation and Management Act,²² which Congress enacted in 1976²³ and renamed to its current appellation in 1996.²⁴ With certain exceptions, federal jurisdiction over fisheries generally applies more than three miles out to sea, while states generally have authority to manage fisheries within the three miles of ocean closest to shore.²⁵

The Magnuson-Stevens Act is long and complex, and many of its provisions neither inspire nor support litigation over fisheries management. As a result, the discussions that follow focus on the provisions of the Act and its major amendments that create requirements and standards that in turn can either lead to fisheries restrictions that can prompt lawsuits by fisherman or create enforceable legal requirements against which courts can judge the acceptability of actions taken by the federal entities charged with fisheries management responsibility.

22. 16 U.S.C. §§ 1801–1884 (2012).

23. PUB. L. NO. 94-265, 90 Stat. 331 (1976) (codified at 16 U.S.C. §§ 1801–1884).

24. PUB. L. NO. 104-208, § 211, 110 Stat. 3009 (1996) (designating the renaming and requiring it to be used everywhere fifteen days after enactment of the Sustainable Fisheries Act of 1996).

25. 16 U.S.C. § 1856 (2012).

A. Fishery Conservation and Management Act of 1976

The federal government enacted the original federal Fishery Conservation and Management Act on April 13, 1976.²⁶ This act recognized that:

As a consequence of increased fishing pressure and because of the inadequacy of fishery conservation and management practices and controls (A) certain stocks of such fish have been overfished to the point where their survival is threatened, and (B) other such stocks have been so substantially reduced in number that they could become similarly threatened.²⁷

Emphasizing the importance of commercial and recreational fishing to the U.S.,²⁸ the Act also proclaimed fisheries' status as a renewal and sustainable resource—so long as overfishing could be avoided.²⁹ To ensure the safe future of U.S. fisheries, “[a] national program for the conservation and management of the fishery resources of the United States is necessary to prevent overfishing, to rebuild overfished stocks, to insure conservation, and to realize the full potential of the Nation’s fishery resources.”³⁰

The Fishery Conservation and Management Act proclaimed a 200 nautical mile “fishery conservation zone” around the U.S.,³¹ anticipating international law developments in the 1982 third United Nations Convention on the Law of the Sea (UNCLOS III, in effect 1994) that would allow coastal nations to claim a 200 nautical mile exclusive economic zone (EEZ) for purposes that include fisheries management.³² The Act then generally excluded foreign fishing vessels from this zone as of the end of February 1977.³³ As a result, since 1977 fishing in the U.S.’s EEZ. has been reserved almost exclusively for Americans.

For domestic fisheries management, the Act created eight regional Fishery Management Councils (FMCs), for New England, the Mid-Atlantic, the South Atlantic, the Caribbean, the Gulf of

26. PUB. L. NO. 94-265, 90 Stat. 331 (1976) (codified at 16 U.S.C. §§ 1801–1884).

27. *Id.* § 2(a)(2) (codified at 16 U.S.C. § 1801(a)(2)).

28. *Id.* § 2(a)(3) (codified at 16 U.S.C. § 1801(a)(3)).

29. *Id.* § 2(a)(5) (codified at 16 U.S.C. § 1801(a)(5)).

30. *Id.* § 2(a)(6) (codified at 16 U.S.C. § 1801(a)(6)).

31. *Id.* § 101 (codified at 16 U.S.C. § 1811).

32. See Robin Kundis Craig, *Regulation of U.S. Marine Resources: An Overview of the Current Complexity*, 19 NAT. RES. & ENV'T. 3, 4–5 (2004) (providing an overview of UNCLOS III's jurisdictional provisions and the U.S.'s adoption of them through presidential proclamations).

33. PUB. L. NO. 94-265, § 210(a), 90 Stat. 331 (1976) (codified at 16 U.S.C. § 1821(a)).

Mexico, the Pacific, the North Pacific, and the Western Pacific regions.³⁴ These regional FMCs are overseen by the Secretary of Commerce, who has delegated much of his or her authority to the National Marine Fisheries Service (NMFS) within NOAA.³⁵ One of the primary functions of each regional FMC is to “prepare and submit to the Secretary [of Commerce] a fishery management plan [FMP] with respect to each fishery . . . within its geographical area of authority and, from time to time, such amendments to each such plan as are necessary . . .”³⁶ NMFS (also known as “NOAA Fisheries”) and the regional FMCs currently “track[] 473 fish stocks managed by 46 fishery management plans.”³⁷

For any species managed under the Act, the management goal is “optimum yield.”³⁸ The 1976 Act defined “optimum” to mean:

with respect to the yield from a fishery, . . . the amount of fish—

(A) which will provide the greatest overall benefit to the nation, with particular reference to food production and recreation opportunities; and

(B) which is prescribed as such on the basis of the maximum sustainable yield from such fishery, as modified by any relevant economic, social, or ecological factor.³⁹

To achieve this goal, FMPs in 1976 had to meet seven national standards:

(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the optimum yield from each fishery.

(2) Conservation and management measures shall be based upon the best scientific information available.

(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

34. *Id.* § 302(a) (codified at 16 U.S.C. § 1852(a)).

35. *About Us*, NOAA FISHERIES, <http://www.nmfs.noaa.gov/aboutus/aboutus.html> (last visited Apr. 2, 2017).

36. PUB. L. NO. 94-265, § 302(h)(1), 90 Stat. 331 (1976) (codified at 16 U.S.C. § 1852(h)(1)).

37. *Our Work: Fisheries*, NOAA FISHERIES, <http://www.noaa.gov/fisheries> (last visited Apr. 2, 2017).

38. PUB. L. NO. 94-265, § 301(a)(1), 90 Stat. 331 (1976) (codified at 16 U.S.C. § 1851(a)(1)).

39. *Id.* § 3(18) (codified at 16 U.S.C. § 1802(18)).

(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(5) Conservation and management measures shall, where practicable, promote efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.⁴⁰

In addition, each FMP had to contain five mandatory components. Specifically, each FMP must:

(1) contain the conservation and management measures, applicable to foreign fishing and fishing by vessels of the United States, which are—

(A) necessary and appropriate for the conservation and management of the fishery;

(B) described in this subsection or subsection (b), or both; and

(C) consistent with the national standards, the other provisions of this Act, and any other applicable law;

(2) contain a description of the fishery, including, but not limited to, the number of vessels involved, the type and quantity of fishing gear used, the species of fish involved and their location, the cost likely to be incurred in management, actual and potential revenues from the fishery, any recreational interests in the fishery, and the nature and extent of foreign fishing and Indian treaty fishing rights, if any;

(3) assess and specify the present and probable future condition of, and the maximum sustainable yield and optimum yield from, the fishery, and include a summary of the information utilized in making such specification;

40. *Id.* § 301(a) (codified at 16 U.S.C. § 1851(a)).

(4) assess and specify—

(A) the capacity and the extent to which fishing vessels of the United States, on an annual basis, will harvest the optimum yield specified under paragraph (3), and

(B) the portion of such optimum yield which, on an annual basis will not be harvested by fishing vessels of the United States and can be made available for foreign fishing; and

(5) specify the pertinent data which shall be submitted to the Secretary with respect to the fishery, including, but not limited to, information regarding the type and quantity of fishing gear used, catch by species in numbers of fish or weight thereof, areas in which fishing was engaged in, time of fishing, and number of hauls.⁴¹

FMPs could also contain a plethora of other provisions at the FMC's discretion, including permit requirements, fishing zones, catch limitations, and gear limitations.⁴² Congress also empowered the FMCs to limit access to fisheries.⁴³

On the enforcement side, the 1976 Fishery Conservation and Management Act made several actions related to fishing illegal⁴⁴ and punishable through civil penalties,⁴⁵ criminal enforcement,⁴⁶ and civil forfeitures.⁴⁷ The Secretary of Commerce and the "Secretary of the department in which the Coast Guard is operating" received authority to enforce these provisions.⁴⁸

Nevertheless, the 1976 Fishery Conservation and Management Act fairly systematically excluded environmental interests from fisheries management. For example, Congress designated a varying number of voting members for each regional FMC,⁴⁹ but it created the requirements for these voting members so as to greatly favor fisheries interests. Thus, in general, FMC voting members were to include: (1) "The principal State official with marine fishery management responsibility and expertise in each constituent State," designated by the governor of each relevant state; (2) "[t]he regional director of the National Marine Fisheries Services for the geographic area concerned, or his designee"; and (3) other FMC

41. *Id.* § 303(a) (codified at 16 U.S.C. § 1853(a)).

42. *Id.* § 303(b) (codified at 16 U.S.C. § 1853(b)).

43. *Id.* § 303(b)(6) (codified at 16 U.S.C. § 1853(b)(6)).

44. *Id.* § 307 (codified at 16 U.S.C. § 1857).

45. *Id.* § 308 (codified at 16 U.S.C. § 1858).

46. *Id.* § 309 (codified at 16 U.S.C. § 1859).

47. *Id.* § 310 (codified at 16 U.S.C. § 1860).

48. *Id.* § 311 (codified at 16 U.S.C. § 1861); *see also id.* § 3(20) (defining "Secretary" in the Act to be the Secretary of Commerce).

49. *Id.* § 302(a) (codified at 16 U.S.C. § 1852(a)).

members appointed by the Secretary of Commerce from state governors' lists of "qualified individuals," where "qualified individual" "means an individual [who is] knowledgeable or experienced with regard to the management, conservation, or recreational or commercial harvest, of the fishery resources of the geographical area concerned."⁵⁰ John P. Wise noted about U.S. fisheries management in 1991 that the fish themselves (in particular, the haddock) "ha[ve] no friends,"⁵¹ while another observer has noted that "[t]here is a very strong implication that the fishing industry is the major stakeholder in the fishery management process."⁵²

B. Sustainable Fisheries Act of 1996

The Sustainable Fisheries Act⁵³ amended the Magnuson-Stevens Act in a number of ways to implement more ecologically-minded goals for marine fisheries management. Many of these amendments emphasized habitat requirements for fish and the need to actively rebuild overfished fish stocks.

Congress used the Sustainable Fisheries Act to inject habitat concerns throughout the Magnuson-Stevens Act. For example, it amended the findings and purposes of the Act to acknowledge that:

Certain stocks of fish have declined to the point where their survival is threatened, and other stocks of fish have been so substantially reduced in number that they could become similarly threatened as a consequence of (A) increased fishing pressure, (B) the inadequacy of fishery resource conservation and management practices and controls, or (C) *direct and indirect habitat losses which have resulted in a diminished capacity to support existing fishing levels.*⁵⁴

Indeed, according to Congress, "One of the greatest long-term threats to the viability of commercial and recreational fisheries is the continuing loss of marine, estuarine, and other aquatic habitats. Habitat considerations should receive increased attention for the conservation and management of fishery resources of the United States."⁵⁵

50. *Id.* § 302(b)(1) (codified at 16 U.S.C. § 1852(b)(1)).

51. JOHN WISE, FEDERAL CONSERVATION AND MANAGEMENT OF MARINE FISHERIES IN THE UNITED STATES 10 (Center for Marine Conservation 1991).

52. Bonnie McCay, *You Win Some, You Lose Some: The Costs and Benefits of Litigation in Fishery Management*, 7 OCEAN & COASTAL L.J. 5, 5 (2001).

53. Sustainable Fisheries Act, PUB. L. NO. 104-297, 110 Stat. 3559 (1996) (amending 16 U.S.C. §§ 1801-1884).

54. *Id.* § 101(1) (amending 16 U.S.C. § 1801(a)) (emphasis added).

55. *Id.* § 101(3) (amending 16 U.S.C. § 1801(a)).

As a result, a new purpose of the Act became “to promote the protection of essential fish habitat in the review of projects conducted under Federal permits, licenses, or other authorities that affect or have the potential to affect such habitat.”⁵⁶ The Sustainable Fisheries Act defined “essential fish habitat” to be “those waters and substrate necessary to fish for spawning, breeding, feeding or growth to maturity,”⁵⁷ and Congress charged the Secretary of Commerce with promulgating regulations that would help the regional FMCs to properly identify essential fish habitat.⁵⁸

The Sustainable Fisheries Act also sought to directly protect fish species by reducing bycatch⁵⁹ and requiring depleted stocks to be rebuilt. Under the amendments, “bycatch” is “fish which are harvested in a fishery, but which are not sold or kept for personal use, and includes economic discards and regulatory discards. Such term does not include fish released alive under a recreational catch and release fishery management program.”⁶⁰ The rebuilding requirements, in turn, redefined what the “optimum” yield from a fishery could be. After the Sustainable Fisheries Act, “optimum,” is defined to mean:

with respect to the yield from a fishery . . . the amount of fish which—

(A) will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems;

(B) is prescribed on the basis of the maximum sustainable yield from the fishery, as reduced by any relevant social, economic, or ecological factor; and

(C) in the case of an overfished fishery, provides for rebuilding to a level consistent with producing the maximum sustainable yield in such fishery.⁶¹

Relatedly, “[t]he terms ‘overfishing’ and ‘overfished’ mean a rate or level of fishing mortality that jeopardizes the capacity of a fishery to produce the maximum sustainable yield on a continuing basis.”⁶²

56. *Id.* § 101(7) (amending 16 U.S.C. § 1801(b)).

57. *Id.* § 102(10) (amending 16 U.S.C. § 1802).

58. *Id.* § 305(b) (amending 16 U.S.C. § 1855).

59. *Id.* § 101(8) (amending 16 U.S.C. § 1801(c)(3)).

60. *Id.* § 102(1) (amending 16 U.S.C. § 1802).

61. *Id.* § 102(7) (amending 16 U.S.C. § 1802).

62. *Id.* § 102(8) (amending 16 U.S.C. § 1802).

To fulfill the Act's new biological goals (as well as human safety goals), the Sustainable Fisheries Act also expanded the requirements for FMPs. First, it added three new national standards to govern federal FMPs:

(8) Conservation and management measures shall, consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.⁶³

Second, the 1996 amendments expanded the FMPs' required provisions to ensure that FMPs would: "rebuild overfished stocks;"⁶⁴ "describe and identify essential fish habitat for the fishery . . . , minimize to the extent practicable adverse effects on such habitat caused by fishing, and identify other actions to encourage the conservation and enhancement of such habitat;"⁶⁵ and:

(10) specify objective and measurable criteria for identifying when the fishery to which the plan applies is overfished (with an analysis of how the criteria were determined and the relationship of the criteria to the reproductive potential of stocks of fish in that fishery) and, in the case of a fishery which the Council or the Secretary has determined is approaching an overfished condition or is overfished, contain conservation and management measures to prevent overfishing or end overfishing and rebuild the fishery;

(11) establish a standardized reporting methodology to assess the amount and type of bycatch occurring in the fishery, and include conservation and management

63. *Id.* § 106(b) (amending 16 U.S.C. § 1851(a)).

64. *Id.* § 108(a)(1) (amending 16 U.S.C. § 1853(a)(1)(A)).

65. *Id.* § 108(a)(3) (amending 16 U.S.C. § 1853(a)(7)).

measures that, to the extent practicable and in the following priority—

(A) minimize bycatch; and

(B) minimize the mortality of bycatch which cannot be avoided;

(12) assess the type and amount of fish caught and released alive during recreational fishing under catch and release fishery management programs and the mortality of such fish, and include conservation and management measures that, to the extent practicable, minimize mortality and ensure the extended survival of such fish;

(13) include a description of the commercial, recreational, and charter fishing sectors which participate in the fishery and, to the extent practicable, quantify trends in landings of the managed fishery resource by the commercial, recreational, and charter fishing sectors; [and]

(14) to the extent that rebuilding plans or other conservation and management measures which reduce the overall harvest in a fishery are necessary, allocate any harvest restrictions or recovery benefits fairly and equitably among the commercial, recreational, and charter fishing sectors in the fishery.⁶⁶

Finally, Congress created new procedures that require the Secretary of Commerce to keep track of whether fish stocks in each region are either overfished or “approaching a condition of being overfished.”⁶⁷ Once the Secretary determines that a fishery is overfished, it must notify the relevant FMC, requiring that FMC to create or amend FMPs within one year to address the problem.⁶⁸ If the FMC fails to comply, the Secretary must prepare the FMP or amendment instead.⁶⁹ In addition, Congress imposed time limits and distributional equities on the rebuilding process, specifying that the FMPs for overfished fisheries shall:

(A) specify a time period for ending overfishing and rebuilding the fishery that shall—

(i) be as short as possible, taking into account the status and biology of any overfished stocks of fish, the

66. *Id.* § 108(a)(7) (amending 16 U.S.C. § 1853(a)).

67. *Id.* § 109(e) (amending 16 U.S.C. § 1854(e)). “A fishery shall be classified as approaching a condition of being overfished if, based on trends in fishing effort, fishery resource size, and other appropriate factors, the Secretary estimates that the fishery will become overfished within two years.” *Id.* § 109(e).

68. *Id.* § 109(e) (amending 16 U.S.C. § 1854(e)).

69. *Id.* § 109(e) (amending 16 U.S.C. § 1854(e)).

needs of fishing communities, recommendations by international organizations in which the United States participates, and the interaction of the overfished stock of fish within the marine ecosystem; and

(ii) not exceed 10 years, except in cases where the biology of the stock of fish, other environmental conditions, or management measures under an international agreement in which the United States participates dictate otherwise;

(B) allocate both overfishing restrictions and recovery benefits fairly and equitably among sectors of the fishery; and

(C) for fisheries managed under an international agreement, reflect traditional participation in the fishery, relative to other nations, by fishermen of the United States.⁷⁰

These new requirements arguably gave potential litigants new grounds for lawsuits, both if the regional FMCs failed to make the required amendments and if those FMP amendments did not comply with the new standards. In addition, new National Standard 8, which required FMCs to consider impacts of fishery management on affected fishing communities, created unavoidable tensions with the new requirement to rebuild overfished fish stocks, which generally requires a reduction of, and occasionally a complete moratorium on, fishing for that species. Similarly, zealous implementation of the essential fish habitat requirements could limit access to traditional fishing grounds. These ambiguities regarding the Act's exact priorities also became sources of litigation.

Congress did negate one potentially controversial management measure in the Sustainable Fisheries Act, at least until 2000: It imposed a moratorium on the use of Individual Fishing Quotas (IFQs) in federal fisheries management,⁷¹ eliminating the regional FMCs' abilities to incorporate this potential management option for eliminating overfishing and rebuilding overfished fisheries. Instead, Congress ordered a report from the National Academy of Science on IFQs, due to Congress in 1998.⁷² The National Academy was also to report on Community Development Quotas.⁷³ However, Congress did provide for fisheries disaster relief and a funded fishing capacity reduction program, aiding the transition to sustainable fisheries.⁷⁴

70. *Id.* § 109(e) (amending 16 U.S.C. § 1854(e)).

71. *Id.* § 108(e) (amending 16 U.S.C. § 1853).

72. *Id.* § 108(f) (amending 16 U.S.C. § 1853).

73. *Id.* § 108(h) (amending 16 U.S.C. § 1853).

74. *Id.* § 116 (amending 16 U.S.C. § 1861a).

*C. Magnuson-Stevens Fishery Conservation & Management
Reauthorization Act of 2006*

The Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006 was, according to Congress, “[a]n Act [t]o amend the Magnuson-Stevens Fishery Conservation and Management Act to authorize activities to promote improved monitoring and compliance for high seas fisheries, or fisheries governed by international fishery management agreements, and for other purposes.”⁷⁵ Large sections of these amendments, therefore, dealt with U.S. obligations under international law and added new provisions of law external to the Magnuson-Stevens Act proper. Thus, for example, while Part IV added provisions to the Magnuson-Stevens Act to implement numerous international fishery obligations,⁷⁶ Part V implemented the Western and Central Pacific Fisheries Convention through new provisions⁷⁷ and the last parts of the Act enacted new laws to deal with Pacific whiting⁷⁸ and tsunamis,⁷⁹ while Part IX amended the Marine Mammal Protection Act with provisions governing polar bears.⁸⁰

With respect to domestic fishery regulation, the 2006 amendments strengthened many of the environmental features of the Sustainable Fisheries Act, such as bycatch reduction⁸¹ and habitat protection.⁸² Most importantly for assessing litigation impacts, the 2006 Reauthorization Act imposed a fifteenth mandatory component for FMPs, which must now “establish a mechanism for specifying annual catch limits in the plan . . . at a level such that overfishing does not occur in the fishery, including measures to

75. PUB. L. NO. 109-479, 120 Stat. 3575 (2007).

76. *Id.* §§ 401–408 (codified at 16 U.S.C. §§ 1826a, 1826h, 1826i, 1826j, 1826k, 1829, 1891c, 1891d) (amending scattered other provisions of the Magnuson-Stevens Act and other fisheries-related statutes).

77. *Id.* §§ 501–511 (codified at 16 U.S.C. §§ 6901–6910).

78. *Id.* §§ 601–611 (codified at 16 U.S.C. §§ 7001–7010).

79. *Id.* §§ 801–808 (codified at 33 U.S.C. §§ 3201–3207).

80. *Id.* §§ 901–902 (amending the Marine Mammal Protection Act by adding 16 U.S.C. §§ 1423–1423h).

81. *See id.* § 116 (adding a Bycatch Reduction Engineering Program at 16 U.S.C. § 1865). As Madeline Kass has noted, the Act more generally “clarifies and strengthens existing stock rebuilding provisions by requiring Councils to actually *implement* required plans and regulations to end overfishing of stocks declared overfished. Moreover, such plans and regulations must now provide for ending overfishing *immediately*.” Pub. L. No. 109-479, § 104.” Madeline June Kass, *Fishery Conservation and Management Act Reauthorization: “A” for Effort, “C” for Substance*, 21 NAT. RES. & ENV’T. 52, 53 (2007). In addition, “Congress bolstered scientific research by establishing a nationwide, regionally based cooperative research and monitoring program (Cooperative Research Program), a Fisheries Conservation and Management Fund (Conservation Fund), and a regional ecosystem research study.” Pub. L. No. 109-479, §§ 204, 208, and 210.” *Id.*

82. *See* PUB. L. NO. 109-479, § 105, 120 Stat. 3575 (2007) (amending 16 U.S.C. § 1853(b) to allow FMPs to protect deep sea coral habitats); *id.* § 117 (adding a Community-Based Restoration Program for Fishery and Coastal Habitats at 16 U.S.C. § 1891a).

ensure accountability.”⁸³ These mechanisms had to be in place in FMPs by 2010 for overfished fisheries and 2011 for all other fisheries (unless the managed species lives a year or less).⁸⁴

However, the main domestic focus of the 2006 amendments was to authorize, even encourage, limited access privilege programs (LAPPs),⁸⁵ a more general term than IFQ.⁸⁶ Commentators have viewed this new program as a “shift to a more market-based approach” that may help to “avoid the ‘fishing derby’ style of fishing.”⁸⁷ While a market-based approach might sound like a litigation-avoiding strategy, the details of the new program requirements instead would seem to facilitate and multiply the types of litigation possible under the Magnuson-Stevens Act. As Peter Schikler observed shortly after the Reauthorization Act’s passage, “Congress, in response to political pressures from interest groups in fisheries, included in section 303A a number of complexities that will hinder the implementation of LAPPs and therefore the recovery of fish stocks.”⁸⁸

According to the Act, a “limited access privilege” is a federal permit “to harvest a quantity of fish expressed by a unit or units representing a portion of the total allowable catch of the fishery that may be received or held for exclusive use by a person” and can include an IFQ.⁸⁹ In turn, a “limited access system” is “a system that limits participation in a fishery to those satisfying certain eligibility criteria or requirements contained in a fishery management plan or associated regulation.”⁹⁰ FMCs must consider seven factors in establishing these systems.⁹¹

83. *Id.* § 104(a)(10) (amending 16 U.S.C. § 1853(a)).

84. *Id.* §§ 104(b)(1)–(2).

85. *Id.* § 105(4) (amending 16 U.S.C. § 1853(b)(6)).

86. “These amendments effected deep changes to the nation’s fishery management laws by, among many other things, strengthening the MSA’s conservation objectives and fostering increased use of controversial, market-based fisheries management systems.” Shaun M. Gehan & Michele Hallowell, *Battle to Determine the Meaning of the Magnuson-Stevens Fisheries Conservation and Management Act of 2006: A Survey of Recent Judicial Decisions*, 18 OCEAN & COASTAL L.J. 1, 1 (2012).

87. *Lame Duck Congress Reauthorizes and Revamps Magnuson-Stevens Fishery Conservation and Management Act*, MARTEN LAW (Jan. 10, 2007), <http://www.martenlaw.com/news/?20070110-fishery-act-reauthorized>.

88. Peter Schikler, Comment, *Has Congress Made It Harder to Save the Fish? An Analysis of the Limited Access Privilege Program (LAPP) Provisions of the Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006*, 17 N.Y.U. ENVTL. L.J. 908, 909 (2008).

89. PUB. L. NO. 109-479, § 3(b)(3), 120 Stat. 3575 (2007) (adding 16 U.S.C. § 1802(23A)).

90. *Id.* § 3(b)(3) (adding 16 U.S.C. § 1802(23B)).

91. Specifically, an FMC may:

establish a limited access system for the fishery in order to achieve optimum yield if, in developing such system, the Council and the Secretary take into account—

(A) present participation in the fishery;

(B) historical fishing practices in, and dependence on, the fishery;

The 2006 amendments created an entire new provision to govern LAPPs.⁹² Under this section, after the Act's effective date, "a Council may submit, and the Secretary may approve, for a fishery that is managed under a limited access system, a limited access privilege program to harvest fish if the program meets the requirements of this section."⁹³ Any privileges created under this program are permits that can be revoked, not property rights.⁹⁴ In addition, limited access systems must meet eleven statutory requirements.⁹⁵

LAPPs potentially increase both motivation and opportunities for litigation under the Magnuson-Stevens Act. First, by definition, limited access systems bar some fishermen from regulated fisheries, creating an economic and cultural incentive to sue the relevant FMC, NMFS, and the Secretary of Commerce.⁹⁶ Second, the last three requirements for limited access systems each invite legal proceedings, either over the initial allocation of fishing privileges or over antitrust violations.⁹⁷ Moreover, the statute enumerates a number of factors for FMCs to consider when allocating fishing

(C) the economics of the fishery;

(D) the capability of fishing vessels used in the fishery to engage in other fisheries;

(E) the cultural and social framework relevant to the fishery and any affected fishing communities;

(F) the fair and equitable distribution of access privileges in the fishery; and

(G) any other relevant considerations

Id. § 105(4) (16 U.S.C. § 1853(b)(6)).

92. *Id.* § 106 (adding 16 U.S.C. § 1853a).

93. *Id.* (codified at 16 U.S.C. § 1853a(a)).

94. *Id.* (codified at 16 U.S.C. § 1853a(b)).

95. *Id.* (codified at 16 U.S.C. § 1853a(c)(1)).

96. As Peter Schikler has observed:

While LAPPs have important potential benefits, LAPPs have also been a source of controversy in U.S. fisheries. The primary criticisms are based on distributional and equitable arguments. Critics of LAPPs are concerned that fishers who have historically harvested fisheries may not receive quota allocations and will be excluded from fisheries, leading to economic hardship. Critics also fear that trading in LAPPs will allow some fishers to consolidate large portions of quotas and further exclude fishers that have fewer economic resources. There is no doubt that, as the critics contend, increasing efficiency in overcapitalized fisheries by implementing LAPPs will have significant effects on the distribution of resources among prior users. But these concerns about the distributional consequences of LAPPs can be partially addressed when designing limited access programs, particularly through the initial allocation of quota shares.

Schikler, *supra* note 88, at 915–16 (citations omitted). Suzanne Iudicello and Sherry Lueders have also noted that, after FMCs began implementing catch share programs in the 1990s, "[t]he first to challenge these programs in court were fishermen and processors in the fisheries who found their ability to participate greatly reduced—or even eliminated—by catch shares." Iudicello & Lueders, *supra* note 20, at 161.

97. PUB. L. NO. 109-479, § 106, 120 Stat. 3575 (2007) (codified at 16 U.S.C. §§ 1853a(e)(1)(I)–(K)).

privileges,⁹⁸ providing the legal substance to support court challenges from people left out. Third, in order to be eligible to participate in limited access fisheries, relevant fishing communities must meet a number of requirements, including developing and submitting:

a community sustainability plan to the Council and the Secretary that demonstrates how the plan will address the social and economic development needs of coastal communities, including those that have not historically had the resources to participate in the fishery, for approval based on criteria developed by the Council that have been approved by the Secretary and published in the Federal Register.⁹⁹

In addition, FMCs must consider six factors in evaluating fishing community eligibility, again providing legal criteria for challenging a Council's decisions.¹⁰⁰ Fourth, the amendments allow the Secretary of Commerce to waive the U.S. processing requirement¹⁰¹ if "the fishery has historically processed the fish outside of the United States" and "the United States has a seafood safety equivalency agreement with the country where processing will occur,"¹⁰² again inviting legal proceedings and challenges. Finally, fishermen themselves can initiate the creation of a LAPP through a petition to the Secretary of Commerce,¹⁰³ invoking all of the potential procedural and substantive challenges that the federal APA allows for ignored, denied, and granted petitions to federal agencies.

98. *Id.*

99. *Id.* (116 U.S.C. § 1853a(c)(3)(A)(i)(IV)).

100. *Id.* (codified at 16 U.S.C. § 1853a(c)(3)(B)). The six criteria are:

(i) traditional fishing or processing practices in, and dependence on, the fishery;

(ii) the cultural and social framework relevant to the fishery;

(iii) economic barriers to access to fishery;

(iv) the existence and severity of projected economic and social impacts associated with implementation of limited access privilege programs on harvesters, captains, crew, processors, and other businesses substantially dependent upon the fishery in the region or subregion;

(v) the expected effectiveness, operational transparency, and equitability of the community sustainability plan; and

(vi) the potential for improving economic conditions in remote coastal communities lacking resources to participate in harvesting or processing activities in the fishery.

Id.

101. *Id.* (codified at 16 U.S.C. § 1853a(c)(1)(E)).

102. *Id.* (codified at 16 U.S.C. § 1853a(c)(2)).

103. *Id.* (codified at 16 U.S.C. § 1853a(c)(6)(B)).

At the same time that it created new avenues for fisheries litigation, however, Congress also sought to reduce litigation under NEPA. Specifically, Congress ordered the Secretary of Commerce to “revise and update” its NEPA procedures, requiring that the new procedures “conform to the time lines for review and approval of fishery management plans and plan amendments” and:

integrate applicable environmental analytical procedures, including the time frames for public input, with the procedure for the preparation and dissemination of fishery management plans, plan amendments, and other actions taken or approved pursuant to this Act in order to provide for timely, clear and concise analysis that is useful to decision makers and the public, reduce extraneous paperwork, and effectively involve the public.¹⁰⁴

These changes would eliminate some of the more obvious NEPA procedural challenges by conforming the Magnuson-Stevens Act to general NEPA requirements, such as public participation and completing environmental impact analyses before completing the decision-making process.

III. PERCEPTIONS OF MARINE FISHERIES LITIGATION

Litigation under the Magnuson-Stevens Act is often considered an aberration, even detrimental, to effective fisheries management. For example, Marian Macpherson and Mariam McCall, both NOAA attorneys working on fisheries issues at the time they were writing, noted that “absent some affirmative . . . action, fisheries in federal waters go unregulated,” meaning that “in some cases, when a court strikes down an agency action, there may be no management measure left in its place to restrict consumptive use.”¹⁰⁵

Observers consistently identify the 1996 Sustainable Fisheries Act amendments (sometimes in conjunction with other legal developments at the time) as a turning point in Magnuson-Stevens Act litigation. In conjunction with proposed new amendments to the Act, the 106th and 107th Congresses held numerous hearings regarding the Magnuson-Stevens Act at the turn of the 21st century, leading the House of Representatives to report in 2002 that:

One of the issues that was raised during the hearings and concerns the Committee is the number of lawsuits facing

104. *Id.* § 304 (adding 16 U.S.C. § 1854(i)).

105. Macpherson & McCall, *supra* note 2, at 6.

NMFS, the primary federal fisheries conservation and management authority for fisheries found in the EEZ. While a number of different statutes have been used to initiate lawsuits against the agency, the result of this substantial increase in lawsuits since the enactment of the SFA has forced the agency to spend time and personnel to defend its actions. NMFS estimates that it is currently spending as much as one tenth of its manpower and funding to address lawsuits. Before the enactment of the SFA, the number of lawsuits facing the Secretary of Commerce over fisheries conservation and management issues was 16. The Secretary is currently facing 104 with petitions pending which could lead to a number of additional, new lawsuits. It is clear that if fisheries conservation and management measures are to be effective, NMFS cannot continue to spend more than 10 percent of its funding and staff time on litigation.

Litigation was not a major concern of the agency before the SFA; however, it has become a factor in fisheries management since the enactment of the SFA. This concern has been heightened because the SFA added a number of new mandates for NMFS. In fact, the SFA: amended or added 15 definitions; added three new National Standards and amended one existing Standard; added eight new provisions for the Councils to comply with in developing any new FMP and required that all existing plans be amended to comply with these new required provisions; included five new discretionary provisions for Councils to consider when developing FMPs; and required 13 new reports.¹⁰⁶

The House also viewed the Sustainable Fisheries Act's Essential Fish Habitat provisions as difficult-to-implement litigation breeders in need of reform.¹⁰⁷

Congress was also now viewing litigation as a possible impediment to or burden on the implementation of new programs created within the Magnuson-Stevens Act. Thus, for example, when Congress was considering ecosystem-based management of fisheries, the House of Representatives advised the Secretary of Commerce to "use sound judgment in selecting" fisheries to pilot the new approach and especially to avoid both "fisheries whose current management is so complicated that further layers of management will open the fishery to extensive litigation" and

106. H.R. REP. NO. 107-746, at 16-17 (2002).

107. *Id.* at 35-36.

fisheries *already* “burdened with extensive litigation at the time of selection for such ecosystem-based fishery management.”¹⁰⁸ Similarly, proposed “habitat areas of particular concern” requirements could “potentially add to the litigation burden faced by the agency.”¹⁰⁹

Macpherson and McCall also view the Sustainable Fisheries Act as an important turning point in Magnuson-Stevens Act litigation:

Since 1996, NMFS has been the subject of a dramatically increasing number of lawsuits. Several key factors influencing this increase in fisheries litigation include: the 1996 Sustainable Fisheries Act amendments to the Magnuson-Stevens Act, which established new conservation requirements for fishery management plans to meet; the 1996 amendments to the Regulatory Flexibility Act, adding a judicial remedy to enforce the requirement that federal agencies analyze economic impacts on small entities; and a large influx of money to environmental organizations to support a coordinated legal effort to “restore marine ecosystems and fisheries.” Due in part to these changes, a new genre of fishery litigants has emerged on the scene that includes interest as diverse as North Pacific factory trawlers, Gulf of Mexico sport fishermen, and environmental groups such as Greenpeace and Natural Resources Defense Council. For a variety of reasons, these litigants have chosen not to pursue their desired changes through the Magnuson-Stevens Act’s council process, but rather to proceed to court. This new wave of litigation has led to a variety of far-reaching injunctions, including massive closures of areas of the Pacific Ocean and court-ordered modifications of fishing quotas in the Atlantic.¹¹⁰

Macpherson and McCall thus suggest that the Sustainable Fisheries Act allowed environmental interests to weigh in on fisheries management in ways that had not been possible under the 1976 Act. Others have articulated similar views—for example, that the Sustainable Fisheries Act amendments articulated for the first

108. *Id.* at 32.

109. *Id.* at 36.

110. Macpherson & McCall, *supra* note 2, at 2–3 (quoting Nils Stolpe, *Who Puts Up the Money? Environmental Lawsuits Backed by BIG Bucks*, *COMMERCIAL FISHERIES NEWS*, Apr. 2001, at 12A). For a more in-depth analysis of how the 1996 amendments to the Regulatory Flexibility Act affected judicial review for the Magnuson-Stevens Act, see generally M. Jean McDevitt, *Impact of the Regulatory Flexibility Act on the Implementation and Judicial Review Provisions of the Magnuson-Stevens Fishery Conservation and Management Act*, 6 *OCEAN & COASTAL L.J.* 371 (2001).

time truly competing perspectives on fisheries management, what one group of authors has compared as the “biocentric view of fishery management” focused on fish stocks and a “more social and human ecological perspective” on fisheries management.¹¹¹ They noted that, in the wake of these amendments, “[t]he issue of balancing competing objectives is the crux of [the] recent fisheries cases.”¹¹² In the same vein, many others read the Sustainable Fisheries Act as creating a new conservation imperative that could stand against fishermen’s economic incentives and well-being. For example, Paul R. Bagley saw in post-1996 Magnuson-Stevens Act litigation a new “conservation mandate [that] tak[es] priority over minimization of economic impacts on fishing communities”¹¹³ Roger Fleming, Peter Shelley, and Priscilla Brooks similarly characterized Congress as “setting as the paramount objectives the restoration and conservation of fish populations at optimum yield levels and the protection of essential fish habitats.”¹¹⁴

Under these characterizations, what the Sustainable Fisheries Act most importantly did was allow non-fishermen interested parties, like environmental groups, to characterize the Magnuson-Stevens Act as truly a *conservation* statute with larger environmental purposes, rather than just as a statute that managed the fishing industry. Armed with new statutory provisions that created sufficient mandatory duties and conservation standards to advance environmental goals, environmental groups could increasingly convince courts to adopt more ecologically-focused interpretations of the Act—a result that was arguably unlikely at the FMC level (thus answering Macpherson and McCall’s lament that litigants were not using the FMC processes).¹¹⁵ For example, the Natural

111. McCay et al., *supra* note 52, at 6.

112. *Id.*

113. Paul R. Bagley, Note, *Don't Forget About the Fishermen: In the Battle over Fisheries Conservation and Management a Conservation Ethic Has Trumped Economic Concerns of the Community—Or Has It?*, 36 SUFFOLK U. L. REV. 765, 766 (2003) (focusing on two cases involving the New England groundfish fishery, *Conservation Law Found. v. Evans*, 195 F. Supp. 2d 186 (D.D.C. 2002), and *Conservation Law Found. v. Evans*, 211 F. Supp. 2d 55 (D.D.C. 2002)).

114. Roger Fleming, Peter Shelley, & Priscilla M. Brooks, *Twenty-Eight Years and Counting: Can the Magnuson-Stevens Act Deliver on Its Conservation Promise?*, 28 VT. L. REV. 579, 580 (2004). See also Shi-Ling Hsu & James E. Wilen, *Ecosystem Management and the 1996 Sustainable Fisheries Act*, 24 ECOLOGY L.Q. 799, 799 (1997) (“Many observers have hailed the 1996 Sustainable Fisheries Act (SFA), reauthorizing and amending the 1976 Magnuson Fishery Conservation and Management Act (FCMA or Magnuson Act), as a victory for conservation and ecosystem preservation.”); Roger Fleming & John D. Crawford, *Habitat Protection Under the Magnuson-Stevens Act: Can It Really Contribute to Ecosystem Health in the Northwest Atlantic?*, 12 OCEAN & COASTAL L.J. 43, 45 (2006) (noting that “the Sustainable Fisheries Act was enacted in 1996 to strengthen the conservation provisions of our nation’s fisheries law”).

115. Macpherson & McCall, *supra* note 2, at 2–3 (also quoted above in connection with n. 110).

Resources Defense Council persuaded the U.S. Court of Appeals for the Ninth Circuit that NMFS was not entitled to deference when it significantly extended the time to rebuild the overfished darkblotched rockfish population.¹¹⁶ If this view of the Sustainable Fishery Act's true importance is correct, then we would expect litigation by environmental groups to increase significantly after 1996—which it did, as Part IV will discuss.

While the 1996 Sustainable Fisheries Act may have opened the proverbial litigation floodgates for the Magnuson-Stevens Act, however, scholars have also credited the 2006 Reauthorization Act for promoting a new wave of litigation.¹¹⁷ In Gehan and Hallowell's 2012 assessment of new litigation under the 2006 amendments, most of the post-Act litigation concentrated—as might be expected—on issues surrounding the LAPPs, annual catch limits, and accountability measures;¹¹⁸ a more limited set of cases also addressed the collection of recreational fishing data and the fishery impact statements.¹¹⁹ More broadly, Gehan and Hallowell concluded that environmental groups, particularly Oceana, were bringing more general challenges to establish what the Reauthorization Act meant for *all* managed fisheries (and generally winning), while fishermen and their organizations were challenging the details of particular management decisions in particular fisheries.¹²⁰

In their more recent and more focused analysis of litigation over catch share programs under the Northeast Multispecies Fisheries Management Plan and the Pacific Groundfish Fishery Management Plan, Suzanne Iudicello and Sherry Lueders concluded that catch share programs for these fisheries, begun in 2010, may actually reduce litigation over these fisheries in the future.¹²¹ Like Gehan and Hallowell, they also indicated that environmental groups are

116. *Nat. Res. Def. Council, Inc. v. Nat'l Marine Fisheries Serv.*, 421 F.3d 872, 879–80 (9th Cir. 2005). *See also generally* Dane C. Bruun, Note, *A Violation of the Magnuson-Stevens Fishery Conservation and Management Act by National Marine Fisheries Service*, 1 ENVTL. & ENERGY L. & POL'Y J. 397 (2007) (describing the importance of this case for federal fishery management).

117. Gehan & Hallowell, *supra* note 86, at 2 (“As is typical following major changes in law, the Reauthorization Act has spurred a great deal of litigation.”).

118. *Id.* at 10–31. *See also generally* Lindsey Nicolai, Note, *There May Not Always Be More Fish in the Sea: Why NOAA's Restrictions Do Not Violate the Magnuson-Stevens Act*, 39 WM. & MARY ENVTL. L. & POL'Y REV. 269 (2014) (describing a 2013 lawsuit by the State of Massachusetts against NOAA challenging catch limits).

119. Gehan & Hallowell, *supra* note 86, at 32–34.

120. *Id.* at 34.

121. Iudicello & Lueders, *supra* note 20, at 200–01 (“The FMPs for groundfish both on the Pacific Coast and in the Northeast, however, were frequently held to be insufficient under the [Sustainable Fisheries Act] or [Magnuson-Stevens Act] before . . . implementation of catch share programs began in 2010. The catch share programs, while certainly not eliminating litigation over management plans in either fishery, have resulted in more favorable rulings for NMFS.”).

bringing different kinds of litigation challenges than fishermen and their representatives, with fishermen-based lawsuits challenging the catch share programs themselves and environmental groups bringing cases based on administrative law, procedural claims and the Endangered Species Act.¹²²

Perhaps most revealingly in terms of the evolution of litigation under the Magnuson-Stevens Act, however, both of these two recent studies conceptualize litigation under the Reauthorization Act as “typical”—*i.e.*, what occurs under any federal statute after major congressional amendments.¹²³ Gehan and Hallowell conclude that the distinction between environmental groups’ and fishermen’s cases “has been ever thus,”¹²⁴ while Iudicello and Lueders conclude that, “[a]gency hand wringing to the contrary, [litigation] is part of the system—not an indication that the system is broken.”¹²⁵ Thus, both studies suggest that litigation under the Magnuson-Stevens Act has become the new normal—quite an evolution for a statute designed originally to operate largely without the courts.¹²⁶

IV. WHAT GETS LITIGATED UNDER THE MAGNUSON-STEVENS ACT AND ITS AMENDMENTS—AND WHAT DOESN’T—AND BY WHOM

As noted, we set out to construct a first quantitative assessment of litigation under the Magnuson-Stevens Act, hypothesizing that the 1996 and 2006 amendments to the Act have made a difference to both the amount and kinds of lawsuits filed regarding federal fisheries management. The following conclusions and tabulations are based on multiple and comprehensive searches of the Westlaw federal cases database to elicit decisions invoking the Magnuson-Stevens Act (using a long list of relevant search terms) since its enactment in 1976. This search resulted in a collection of 294 cases. We organized these cases first according to the exact legal bases for the litigation (e.g., specific issues under Magnuson-Stevens Act itself, NEPA, Endangered Species Act, and so on), then by the year the plaintiffs filed the case, and finally by general groupings of

122. *Id.* at 204.

123. Gehan & Hallowell, *supra* note 86, at 2; Iudicello & Lueders, *supra* note 20, at 206 (“That catch shares gave rise to a body of litigation is to be expected, given the high-stakes economic impacts of fishery management measures. Moreover, catch share programs arose in a period bracketed by two major revisions to federal fishery law. With new legal requirements for management measures and processes, a pulse of litigation during the period was a certainty.”).

124. Gehan & Hallowell, *supra* note 86, at 34.

125. Iudicello & Lueders, *supra* note 20, at 208.

126. *See also Editor’s Foreword*, *supra* note 3, at 1 (noting that some observers “see the current litigation trend as a more natural phenomenon that has been experienced by other resource agencies in the past and that is a necessary step in educating the involved agencies about the meaning of the laws and their legal duties in managing these marine resources.”).

plaintiffs (e.g., fishers and their representatives, environmental groups, or others). The categories of lawsuits included cases about FMPs, challenges to general NOAA regulations under the Act, challenges to NOAA enforcement actions under the Act, cases involving other environmental issues and statutes, cases about administrative and procedural issues, and a catchall category of other types of cases.

A. Who Sued Over What Issues in Fisheries Management, and When

Between 1976 and 2016, plaintiffs brought 294 federal cases under the Magnuson-Stevens Act. Because the Magnuson-Stevens Act regulates the U.S.'s eight regional FMCs, the FMPs, and overfished stocks, most of the federal cases deal primarily with fishing regulations and enforcement, including gear restrictions, fishing quotas, essential fish habitat, conservation, and a number of similar issues.¹²⁷ The figures and table below (see Figures A and B and Table C) depict who brought suit and the bases for those cases over the last forty years. In addition, the figures show the changes in litigation that occurred after the 1996 amendments, strongly suggesting that the Sustainable Fisheries Act resulted in increased litigation by providing new legal bases for lawsuits.

Fishers have filed the majority of these federal lawsuits under the Magnuson-Stevens Act over the last forty years, with most cases challenging fishing restrictions or enforcement actions for violations.¹²⁸ Nevertheless, later amendments appear to have changed the balance regarding who brings fisheries-related lawsuits. Before the 1996 amendments, fishers brought 67 percent of the suits, while environmental groups brought only 11 percent (see Figure A). After the 1996 amendments, environmental plaintiffs nearly tripled, making up 32 percent of the federal suits brought between 1996 and 2016 (see Figure B). These numbers support the hypothesis above, that the Sustainable Fisheries Act amendments, and to a lesser extent the changes in the 2006 Reauthorization Act,

127. For example, in *Louisiana Seafood Mgmt. Council, Inc. v. Foster*, 917 F. Supp. 439 (E.D. La. 1996), and *Hall v. Evans*, 165 F. Supp. 2d 114 (D.R.I. 2001), fishers challenged regulations over fishing gear. In addition, *Nat. Res. Def. Council, Inc. v. Daley*, 209 F.3d 747 (D.C. Cir. 2000), and *State of New York v. Evans*, 162 F. Supp. 2d 161 (E.D.N.Y. 2001), involved challenges to FMP quotas.

128. For example, in *Ace Lobster Co. v. Evans*, 165 F. Supp. 2d 148 (D.R.I. 2001), lobstermen brought suit to challenge new lobster trap regulations, while in *Bramante Fisheries, Inc. v. Sec'y of U.S. Dep't of Commerce*, No. CIV. A. 91-12318-Y, 1993 WL 463337, at *1 (D. Mass. Nov. 4, 1993), a fishing association challenged the \$25,000 civil penalty and one-year permit sanctions for multiple Magnuson-Stevens Act violations.

allowed environmental groups to effectively recharacterize the Magnuson-Stevens Act as a conservation and ecological law.

Nevertheless, fishers still brought more than half of the 218 cases brought over the last twenty years (see Figure B). In addition, after the 1996 amendments, the number of lawsuits brought by tribes declined from 8 percent to 1 percent. The percentages of state and other suits remained consistent.

Figure A: Federal Fisheries Lawsuits 1976-1996

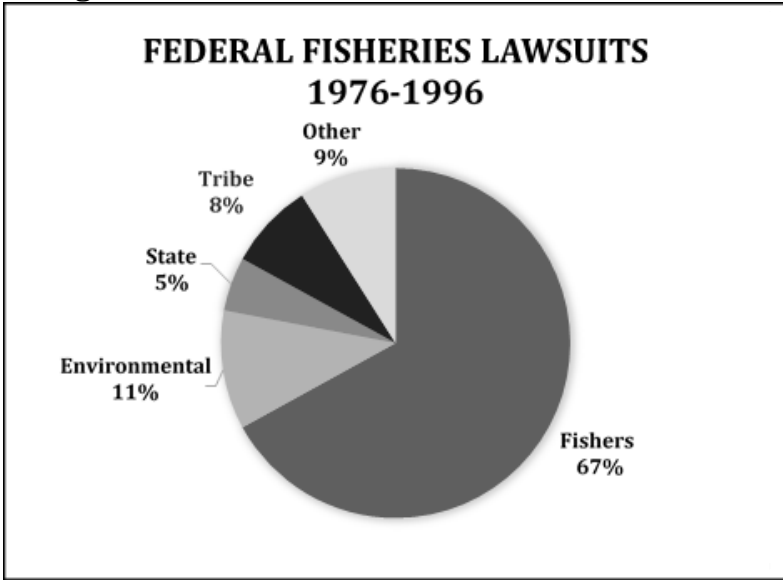
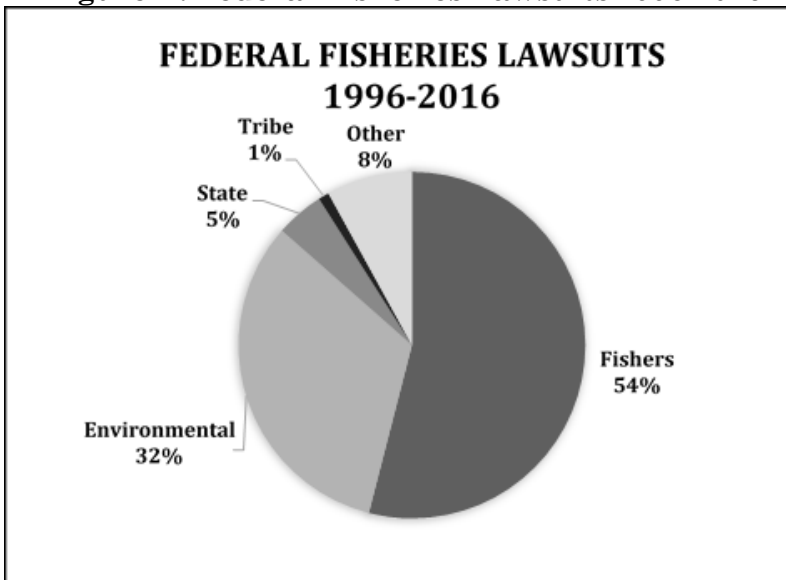


Figure B: Federal Fisheries Lawsuits 1996-2016



Furthermore, the Sustainable Fisheries Act also appears to have increased the volume of fisheries litigation, as both commentators and Congress perceived. Table C shows a dramatic increase in litigation under the Magnuson-Stevens Act after 1996, from only 76 cases filed between 1976 and 1996 to 218 cases brought between 1996 and 2016. Most of the suits brought under the Magnuson-Stevens Act challenged Fishery Management Plans (FMPs), with 114 of 294 federal cases challenging various of the FMCs' FMPs. Of those 294 federal cases, another 23 challenged general NOAA regulations, 31 challenged specific fishery regulations, 43 contested enforcement actions for violations, and 41 dealt with administrative and procedural issues. Another 21 cases handled a variety of other issues, including whether fishing quota rights were "property" for purposes of a Chapter 7 bankruptcy proceeding,¹²⁹ the construction of a wind farm off Nantucket Sound,¹³⁰ and whether a defendant's ship was a "fishing vessel" under the Magnuson-Stevens Act.¹³¹ Nevertheless, despite this variety of cases, fishers were the most frequent plaintiffs, usually either challenging enforcement actions or contesting an FMP in some capacity.

However, from 1996 to 2016, there was a substantial increase in the number and kinds of environmental issues that plaintiffs raised. Only 5 cases raising issues other than FMPs were filed between 1976 and 1996, but plaintiffs brought 36 such cases between 1996 and 2016 (see Table C). This change suggests that the 1996 amendments provided more legal bases for environmental groups to sue in order to protect overfished stocks and fish habitat. In addition, it reflects the amendments' increased focus on conservation, overfishing, and bycatch. For example, the cases brought by environmental groups after 1996 established important legal interpretations of the Act by challenging the stock quotas, stock recovery and rebuilding plans, lack of explanations from agencies regarding decisions, procedural errors, effects on vulnerable species, gear restrictions, bycatch monitoring and mitigation, and environmental assessments and impacts. With these new enforceable requirements, environmental groups acquired new avenues to sue under the Magnuson-Stevens Act. Moreover, different environmental plaintiffs brought the litigation. Prior to 1996, only one environmental organization, the Northwest Environmental Defense Center, brought cases against FMPs, and they were all brought between

129. *In re Schmitz*, 270 F.3d 1254 (9th Cir. 2001).

130. *Ten Taxpayer Citizens Grp. v. Cape Wind Assocs.*, 373 F.3d 183 (1st Cir. 2004).

131. *United States v. Approximately 64,695 Pounds of Shark Fins*, 520 F.3d 976 (9th Cir. 2008).

1986 and 1989.¹³² After 1996, various environmental groups brought twenty-one cases challenging FMPs and corresponding regulations.

Figure C: Bases for Federal Fisheries Lawsuits

Bases for Federal Fisheries Lawsuits: 1976-1996 (76 Cases)

<i>Plaintiffs</i>	<i>FMPs</i>	<i>General NOAA Regs.</i>	<i>Specific Fishery Regs.</i>	<i>Challenging Enforcement</i>	<i>Other Envtl. Issues</i>	<i>Administrative and Procedural</i>	<i>Other</i>
Fishers	26	3	3	13	0	1	4
Envtl.	3	0	2	0	3	0	0
State	1	1	0	0	0	1	1
Tribes	3	0	1	0	0	0	2
Combination	1	0	0	0	0	0	0
U.S.	0	0	0	5	0	0	0
Other	0	0	0	0	2	0	1

Bases for Federal Fisheries Lawsuits: 1996-2016 (218 Cases)

<i>Plaintiffs</i>	<i>FMPs</i>	<i>General NOAA Regs.</i>	<i>Specific Fishery Regs.</i>	<i>Challenging Enforcement</i>	<i>Other Envtl. Issues</i>	<i>Administrative and Procedural</i>	<i>Other</i>
Fishers	52	10	13	22	4	12	5
Envtl.	21	5	9	3	30	4	2
State	6	2	1	0	0	1	0
Tribes	0	1	0	0	0	0	0
Combination	1	1	2	0	2	0	0
U.S.	0	0	0	0	0	0	1
Other	0	0	0	0	0	2	5

132. See, e.g., *Nw. Envtl. Def. Ctr. v. Brennan*, Civ. No. 86-725-FR, 1989 WL 20346, at *1 (D. Or. Mar. 7, 1989); *Nw. Envtl. Def. Ctr., Oregon, Inc. v. Evans*, Civ. No. 87-229-FR, 1988 WL 360476, at *1 (D. Or. Aug. 12, 1988); *Nw. Envtl. Def. Ctr. v. Brennan*, 958 F.2d 930 (9th Cir. 1992).

Despite the increase in environmental plaintiffs and environmental issues after 1996, however, most environmental litigation regarding federal fisheries continued to be based on other statutes, like the Endangered Species Act or NEPA. Even though the 1996 amendments expanded opportunities for environmental plaintiffs to bring suits under the Magnuson-Stevens Act, it remained difficult for an environmental group to succeed with those claims. Between 1976 and 2016, environmental groups brought 33 cases for other environmental issues using the Magnuson-Stevens Act in conjunction with other environmental statutes. Out of these 33 cases, 32 raised the Endangered Species Act, 19 invoked the National Environmental Policy Act, 3 used the Migratory Bird Treaty Act, 1 raised the Clean Water Act, and 1 invoked the Marine Mammal Protection Act, with many cases invoking more than one of these statutes.

The Endangered Species Act has thus been the primary alternate statute for challenging the environmental impacts of fisheries management under the Magnuson-Stevens Act. Some such cases involved endangered fish stocks,¹³³ while others challenged how fishery management under the Magnuson-Stevens Act affected non-fish endangered species, such as the Hawaiian monk seal, Steller sea lions, or Loggerhead sea turtles.¹³⁴

Nevertheless, despite these additions and alternate legal avenues, fishers remained the primary plaintiffs throughout the forty years since the Magnuson-Stevens Act's initial enactment. The typical fishermen's lawsuit consists of multiple plaintiffs, usually in the form of a fishermen's association, and can include fishermen, fishing companies, vessel owners, and processing or canning facilities.¹³⁵ Prior to the 1996 Sustainable Fishery Act,

133. *See, e.g.,* Humane Soc'y of the U.S. v. Pritzker, 75 F. Supp. 3d 1, 5 (D.D.C. 2014) (alleging that NMFS acted arbitrarily and capriciously when it denied the plaintiffs' petition to list the porbeagle shark as endangered or threatened); Common Sense Salmon Recovery v. Evans, 329 F. Supp. 2d 96 (D.D.C. 2004) (challenging a decision to permit fishing of endangered salmon species).

134. *See, e.g.,* Greenpeace Found. v. Daley, 122 F. Supp. 2d 1110 (D. Haw. 2000) (alleging that the crustacean FMP adversely affected endangered Hawaiian monk seal); Greenpeace, Am. Oceans Campaign v. Nat'l Marine Fisheries Serv., 237 F. Supp. 2d 1181 (W.D. Wash. 2002) (alleging that NMFS violated the Endangered Species Act because it failed to evaluate FMPs' effects on the endangered Steller sea lion); Oceana, Inc. v. Evans, 384 F. Supp. 2d 203 (D.D.C. 2005) (alleging that an amendment to the Atlantic Sea Scallop FMP failed to protect ESA-listed loggerhead sea turtles).

135. *See, e.g.,* Wash. State Charterboat Ass'n v. Baldrige, 702 F.2d 820 (9th Cir. 1983) (a lawsuit brought by a sports anglers association for operating offices and vessels); Alaska Factory Trawler Ass'n v. Baldrige, 831 F.2d 1456 (9th Cir. 1987) (a lawsuit brought by a trawl fishermen association); United Boatmen of NJ v. Mosbacher, Civ. A. No. 90-2089(JCL), 1992 WL 13197, at *1 (D.N.J. Jan. 24, 1992) (a lawsuit brought by a charter boat owners and operators organization); Sea Watch Int'l v. Mosbacher, 762 F. Supp. 370 (D.D.C. 1991) (a lawsuit brought by fish harvesters and processors brought suit); Se. Fisheries Ass'n, v. Mosbacher, 773 F. Supp. 435 (D.D.C. 1991) (a lawsuit brought by commercial fishermen

fishers often brought claims that the FMCs' and Secretary of Commerce's decisions were arbitrary and capricious or followed improper procedures, including decisions regarding fishery closures, the division of FMP zones, vessel regulations, federalism concerns, and the Secretary of Commerce's authority. For example, in *Alliance Against IFQs v. Brown*, fishermen brought suit over halibut and sablefish catch regulations, arguing that the Secretary of Commerce lacked authority to impose such regulations and that his decision was arbitrary and capricious.¹³⁶ The government won when the court held the catch allowance lawful and within the Secretary's authority.¹³⁷ Likewise, in *Southeastern Fisheries Ass'n, Inc. v. Mosbacher*, commercial fishing canning and processing associations challenged the red drum FMP in the Gulf of Mexico.¹³⁸ The U.S. District Court for the District of Columbia issued judgments for both the plaintiffs and defendants, finding both that the government's failures to supersede state laws and the state's vessel regulations were arbitrary and that the division of the red drum fishery into zones and closing the fishery in the EEZ was not arbitrary or capricious.¹³⁹

These two cases are excellent examples of the typical fishermen's lawsuits, where fishers challenge the regulations regulating their fishing practices. Considering the great impact that the Magnuson-Stevens Act can have on the fishers' livelihood and on the socioeconomic wellbeing of fishing communities, these types of challenges—not surprisingly—reflect the socioeconomic concerns of the fishers themselves. In fact, fishermen plaintiffs frequently cite concerns over a regulation's economic impact on locals and their fishing industry,¹⁴⁰ in light of the Magnuson-Stevens Act's National Standard 8,¹⁴¹ added in the 1996 Sustainable Fishery Act.

and canning and processing associations).

136. *Alliance Against IFQs v. Brown*, 84 F.3d 343, 345 (9th Cir. 1996).

137. *Id.* at 351–52.

138. *Se. Fisheries Ass'n v. Mosbacher*, 773 F. Supp. at 437.

139. *Id.* at 440–42.

140. *N.C. Fisheries Ass'n v. Daley*, 27 F. Supp. 2d 650, 661 (E.D. Va. 1998) (“National Standard 8 mandates that the Secretary’s regulatory measures ‘provide for the sustained participation of [fishing] communities, and [] to the extent practicable, minimize adverse economic impacts on such communities.’”); *Pac. Coast Fed’n of Fishermen’s Ass’ns v. Blank*, 693 F.3d 1084, 1093 (9th Cir. 2012) (“The question remains whether NMFS met its obligations to consider fishing communities in fashioning Amendments 20 and 21. It did. NMFS recognized that fishing communities must be considered under the MSA; surveyed the current status of fishing communities (including observing that many are ‘faltering’ under the status quo); described the effects of quota programs and other management tools on those communities; and explained how communities participated in the Pacific Council’s decisions. In addition, NMFS proposed, and the Council adopted, various measures to mitigate the impacts of trawl rationalization on fishing communities.”).

141. 16 U.S.C. §§ 1853a(e)(5)(A), (C)–(D) (2012).

B. Segregating Litigation Based on the Magnuson-Stevens Act Itself

As noted, many lawsuits by environmental groups are actually based on statutes other than the Magnuson-Stevens Act, especially the Endangered Species Act. Thus, when we narrow the focus to litigation actually based on the Magnuson-Stevens Act itself—specifically, to cases dealing with FMPs, general NOAA regulations, and specific fishery regulations—fishers become even more decisively the plaintiffs. Between 1976 and 1996 fishers brought 75 percent of these federal cases, while environmental groups brought only 11 percent (see Figure D). While the fishers' share of cases declined from 75 percent to 61 percent after the 1996 amendments, they remained the primary plaintiffs bringing litigation under the Magnuson-Stevens Act (see Figure E).

Notably, however, even looking just at the Magnuson-Stevens Act-based cases, environmental plaintiffs still increased from 11 percent before to 28 percent after 1996 (compare Figures D and E). The number of cases is equally impressive: Environmental plaintiffs only brought 5 Magnuson-Stevens Act cases between 1976 and 1996, but they brought 35 such cases between 1996 and 2016. Thus, the 1996 amendments correlate with an increased ability of environmental plaintiffs to use the Magnuson-Stevens Act itself for fisheries-related litigation.

Figure D: Magnuson-Stevens Act Litigation 1976-1996

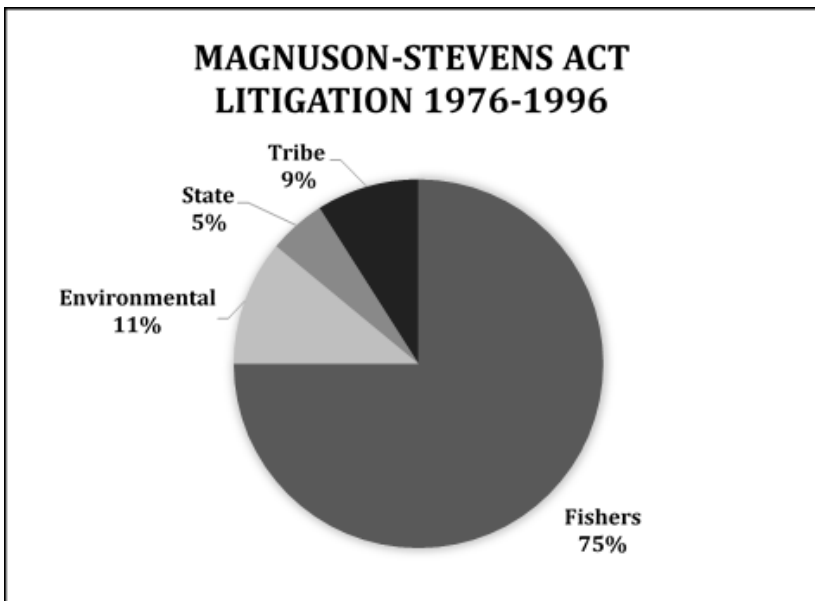
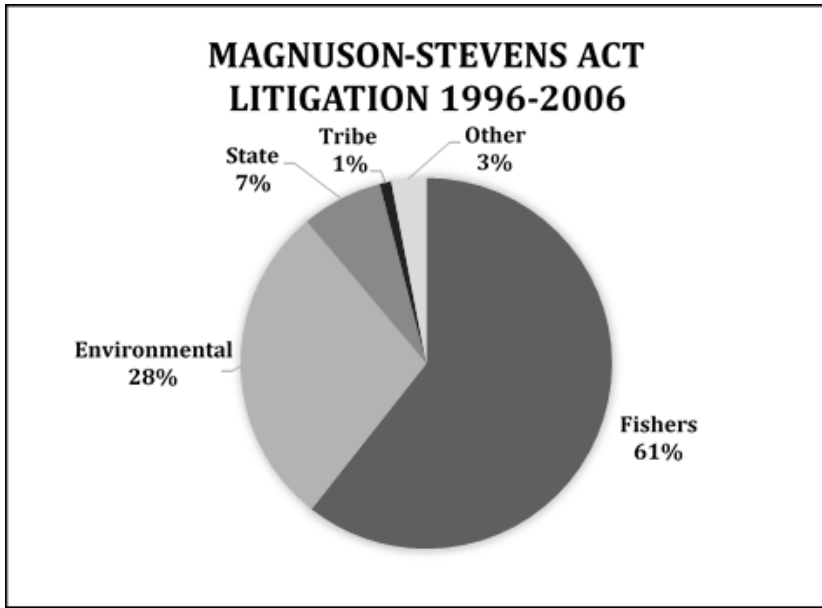


Figure E: Magnuson-Stevens Act Litigation 1996-2016

C. Apparent Effect of the 1996 Sustainable Fisheries Act

Given the litigation patterns discussed above, the 1996 Sustainable Fisheries Act appears to have fostered several changes in litigation patterns under the Magnuson-Stevens Act, including a dramatic increase in the amount of litigation, a significant increase in cases brought by environmental groups, and the emergence of more combination cases where a variety of plaintiffs unite to challenge fishery regulations. First, as Table C demonstrates, there was a surge in fisheries-related litigation following the 1996 amendments. Between 1976 and 1996, only 76 cases came to the federal courts, but plaintiffs brought 218 cases between 1996 and 2016. Within this litigation, moreover, the category of lawsuits brought by environmental groups saw the greatest percentage increase since 1996, and that increase seems to be at least partially attributable to the enforceable requirements that Congress added to the amended Magnuson-Stevens Act (see Figures D and E). For example, in *National Audubon Society v. Evans*, the plaintiff challenged Atlantic bluefin tuna stock rebuilding plans under the Highly Migratory Species FMP.¹⁴² Specifically, the National Audubon Society raised concerns that the rebuilding plans would not achieve the maximum

¹⁴² Nat'l Audubon Soc'y v. Evans, No. Civ. A. 99-1707 (RWR), 2003 WL 23147552, at *1-*3 (D.D.C. July 3, 2003).

sustainable yield, which was required under the Sustainable Fisheries Act.¹⁴³ Likewise, in *Natural Resources Defense Council, Inc. v. Daley*, the Natural Resources Defense Council challenged the summer flounder fishing quota because it failed to prevent overfishing.¹⁴⁴ Both of these cases demonstrate environmental groups using litigation to enforce the Sustainable Fisheries Act's new enforceable requirements to halt overfishing and rebuild overfished fish stocks.

Second, the 1996 amendments saw an increase in combination cases where two factions joined forces to challenge fishing regulations under the Magnuson-Stevens Act. For example, in *Flaherty v. Pritzker*, two fishermen and an environmental group brought suit to challenge the Atlantic Herring FMP;¹⁴⁵ in *Alaska v. Lubchenco*, the State of Alaska and various fishing industry representatives joined forces to challenge commercial fishing limitations in the Bering Strait, Aleutian Islands, and Gulf of Alaska;¹⁴⁶ and in *Coastal Conservation Association v. Gutierrez*, the Coastal Conservation Association and Fishing Rights Alliance simultaneously challenged red grouper bag limits.¹⁴⁷ These combination cases not only show an increase in plaintiffs in different categories teaming up against fishery regulations, but they also evidence an increase in widespread opposition to specific regulations, even when the individual plaintiffs varied in their legal reasoning and purposes for challenging those regulations.

Nevertheless, fishermen's lawsuits remain largely unchanged, with most challenges focusing on fishing restrictions. However, there was a slightly increased focus on overfishing, with cases increasing their focus on catch limits, quotas, and bycatch monitoring. For example, in *Willie R. Etheridge Seafood Co. v. Pritzker*, pelagic longline fishermen from states along the East Coast contested the amended Atlantic Highly Migratory Species FMP because it imposed new quotas, gear restricted areas, and increased monitoring.¹⁴⁸ The U.S. District Court for the Eastern District of North Carolina found the regulations to be in compliance with the Magnuson-Stevens Act and rejected the plaintiffs' claims that

143. *Id.* at *3.

144. *Nat. Res. Def. Council, Inc., v. Daley*, 209 F.3d at 748–49.

145. *Flaherty v. Pritzker*, No. 11-0660 (GK), 2016 WL 3360480, at *1 (D.D.C. June 14, 2016).

146. *Alaska v. Lubchenco*, 723 F.3d 1043, 1047 (9th Cir. 2013), *reh'g and reh'g en banc denied*, (Oct. 16, 2013).

147. *Coastal Conservation Ass'n v. Gutierrez*, No. 2:05CV400-FTM-29DNF, 2005 WL 2850325, at *4 (M.D. Fla. Oct. 31, 2005).

148. *Willie R. Etheridge Seafood Co. v. Pritzker*, No. 2:14-CV-73 BO, 2016 WL 1126014, at *2–*3 (E.D.N.C. Mar. 21, 2016).

NMFS acted arbitrarily and capriciously.¹⁴⁹ Meanwhile, in *Sea Hawk Seafoods, Inc. v. Locke*, Alaskan fish processors contested FMP amendments because of an alleged lack of competition protections for shore side processors.¹⁵⁰ Thus, as in the cases from 1976 to 1996, the federal suits brought by fishers following the 1996 amendments focus on fishing restrictions and community impacts, but with a greater emphasis on conservation-based regulations.

Likewise, fishermen's lawsuits challenging NMFS's enforcement actions remained largely unchanged between 1976 and 2016. Fishers, however, lost most of those suits. Out of 43 enforcement challenges, the government won 34 of the cases, fishers won 4, the court remanded 1 case for factual findings, and in another 4 cases the court granted and denied relief in part to both parties. The basis of most of these cases (18 of 34) was a fisherman challenging allegedly high penalties imposed for a violation. For example, in *Duckworth v. United States*, fisherman Duckworth challenged his \$50,000 fine for "unlawfully catching and possessing monkfish in federal waters without a federal permit."¹⁵¹ Like many plaintiffs in NOAA enforcement challenges, Duckworth lost.¹⁵² The court held the penalty lawful and justified and commented that "Duckworth was not a greenhorn in the fishing industry and was not forthcoming in his dealing with the agents. Moreover, a meaningful civil penalty in this case will serve the ultimate goal of protecting the country's fisheries."¹⁵³

D. The More Subtle Effects of the 2006 Reauthorization Act

The effects of the 2006 Reauthorization Act on federal fisheries litigation does not appear to be nearly as dramatic as that of the 1996 Sustainable Fisheries Act. Specifically, the amount and types of litigation between 2006 and 2016 was comparable to that between 1996 and 2006, although the exact focus of challenges has changed somewhat (*i.e.*, from challenging rebuilding plans to challenging LAPPs).

As noted, between 1996 and 2016, plaintiffs filed 218 cases in federal courts challenging federal fisheries management. 11 cases were brought in 2006 alone, with 6 brought by fishers, 3 brought by environmental plaintiffs, 1 brought jointly by the states of Massa-

149. *Id.* at *10.

150. *Sea Hawk Seafoods, Inc. v. Locke*, 568 F.3d 757, 762–63 (9th Cir. 2009).

151. *Duckworth v. United States*, No. 05-145S, 2006 WL 753081, at *1 (D.R.I. Mar. 22, 2006).

152. *Id.*

153. *Id.* at *5.

chusetts and New Hampshire, and 1 being a U.S. enforcement action. Of the total 218 cases over these 20 years, the number of cases evenly split before and after the Reauthorization Act, with 109 brought between 1996 and 2006 and the other 109 brought between 2006 and 2016.

The breakdown of litigants before and after the Reauthorization Act is also relatively constant, although perhaps with a slight increase in enforcement actions after 2006. Cases brought by fishers remained constant, at about 54 to 55 percent, in both periods, while cases brought by environmental plaintiffs declined from 35 percent to 30 percent after 2006 (compare Figures F and G). Whether this decline is significant or not, and what it might reveal about compliance and enforcement under the Magnuson-Stevens Act, warrants further study. Nevertheless, as noted, the main effect of the Reauthorization Act on federal fisheries litigation appears to have been subtle shifts in the exact challenges raised rather than major changes in the types or numbers of cases filed.

Figure F: Federal Fisheries Lawsuits 1996-2006

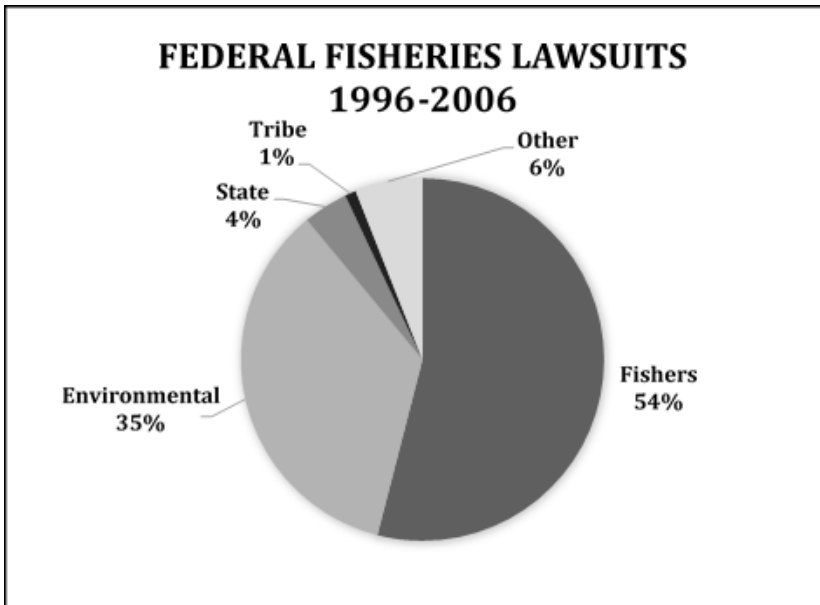
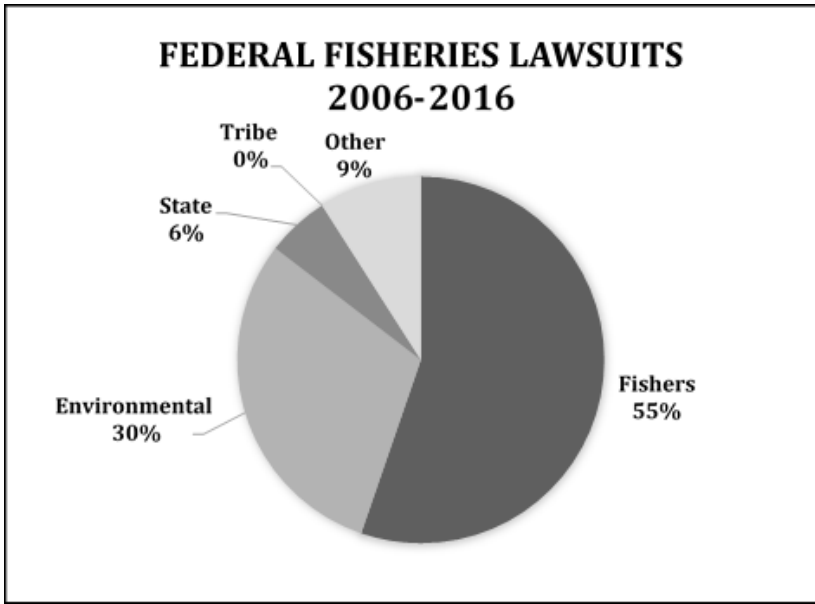


Figure G: Federal Fisheries Lawsuits 2006-2016

E. Who Wins Federal Fisheries Litigation?

Overall, in cases where the government was the defendant—whether that involved NMFS, the Secretary of Commerce, or other federal agencies—plaintiffs usually lost and the government often won (see Figure H).¹⁵⁴ Over the last forty years, both fishers and environmental groups lost over half of the cases they have brought (see Figures I and J). Thus, even with an increased variety of legal bases on which to sue and the 1996 amendments' increased focus on conservation, plaintiffs lost the majority of their federal cases—a typical outcome in any administrative law setting.

154. Our finding is thus consistent with Suzanne Iudicello's and Sherry Lueders' recent review of catch share litigation under the Magnuson-Stevens Act, which concluded that "[f]ederal fishery managers have prevailed in more lawsuits ... in the substance of their decisions ... as Congress revised the legislation guiding management measures to include greater specificity in the requirements of catch share programs." Iudicello & Lueders, *supra* note 20, at 159.

Figure H: Litigation Winners, 1976-2016

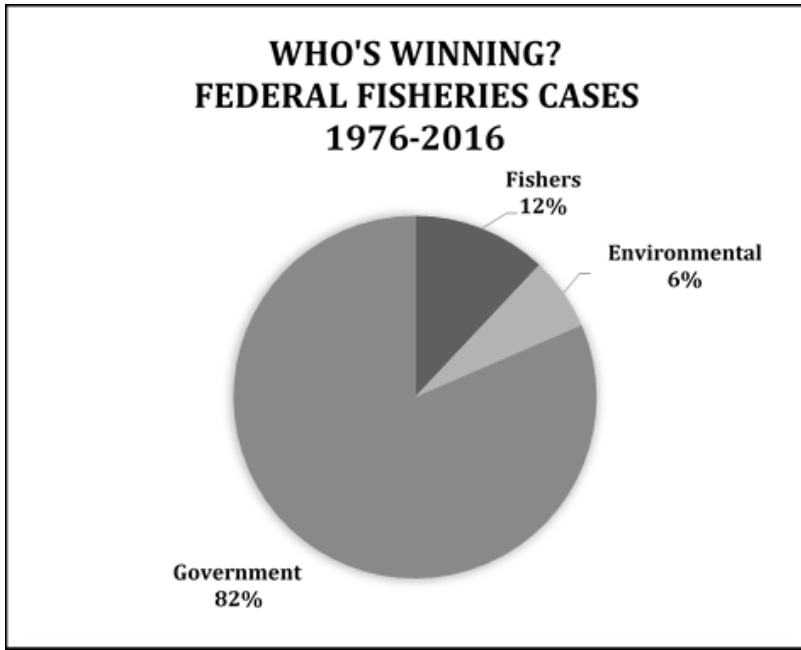


Figure I: Environmental Groups as Plaintiffs

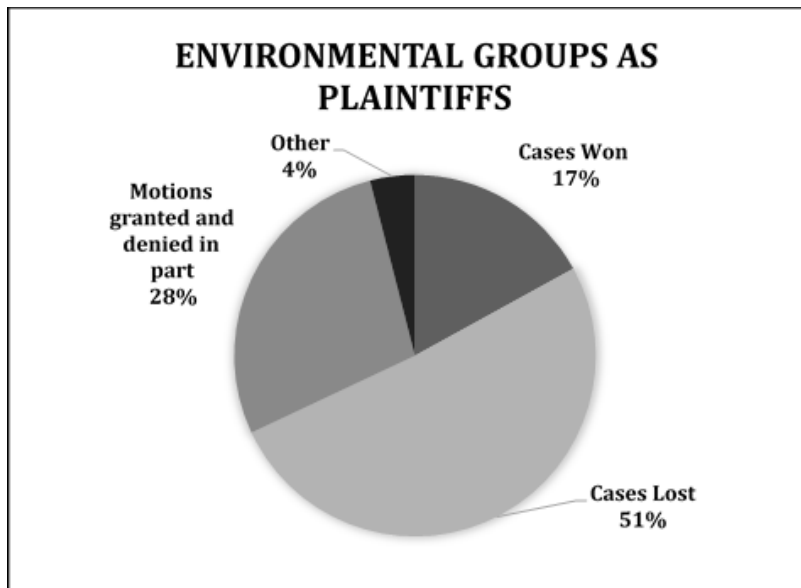
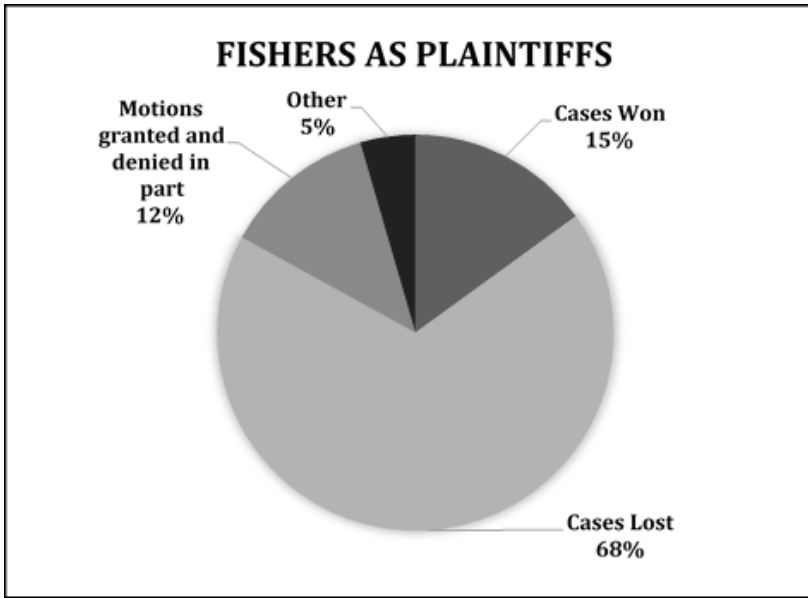


Figure J: Fishers as Plaintiffs

V. CONCLUSION

Our empirical analysis may, on first impression, do little more than confirm what observers at the time felt as clear reality: federal fisheries-related litigation increased significantly after Congress enacted the Sustainable Fisheries Act of 1996, and more of that litigation sought to entrench conservation and ecological values into the Magnuson-Stevens Act's implementation than had occurred before the 1996 amendments. Indeed, litigation over federal fisheries management did surge after Congress enacted the Sustainable Fisheries Act of 1996. Courts decided only 76 cases brought under the Magnuson-Stevens Act before 1996, but they decided 218 from 1996 to 2016. As part of this increase in litigation, moreover, environmental groups have, as it were, become players in fisheries management. Fishermen and commercial fishing and processing organizations brought about 67% of the cases decided before 1996; the remaining 33% divided roughly equally among other types of plaintiffs, with 11% brought by environmental groups. In contrast, environmental groups brought about 32% of the 218 federal cases decided after 1996.

Thus, from the perspectives both of environmental law without courts and of statutory design, the Sustainable Fisheries Act and its implementation are worthy of increased study. We suggest preliminarily that these 1996 amendments both provided plaintiffs

with more statutory issues to litigate and allowed new kinds of plaintiffs—namely, environmental groups—to recharacterize the Magnuson-Stevens Act as truly a *conservation* law rather than as just a federal statute to facilitate the fishing industry. At the same time, however, the Sustainable Fisheries Act articulated clear tensions between Congress's desire to conserve, restore, and sustainably manage fish stocks and Congress's desire to preserve the economic and social well-being of fishermen and fishing communities, manifested in new National Standard 8. These tensions and conflicting mandates also provided fodder for courtroom litigation, while FMCs' actual and perceived adherence to policies that allowed fishing despite increasing evidence of problems probably dissuaded the new plaintiffs from seeking their relief in administrative fora. This very preliminary analysis, however, would benefit considerably from deeper contextualization, in terms both of what science might have been revealing about the status of U.S. fisheries and of what was going on more broadly in fisheries and environmental politics around 1996. As such, we hope that our preliminary quantitative analysis will spur additional research in this area.

Nevertheless, in addition to confirming certain perceptions regarding the litigation impact of the Sustainable Fisheries Act, our empirical investigation also offers several more subtle insights into the Magnuson-Stevens Act's implementation, suggesting several lines of further investigation that may prove profitable. First, while Congress may have intended federal fisheries management to operate largely without the courts, that has never been the reality. Even before the 1996 amendments, plaintiffs were challenging the implementation of the Act in court.

That said, it should also be noted that, even *after* 1996, the Magnuson-Stevens Act remains one of the least-litigated of the federal environmental and natural resources statutes: Westlaw searches reveal over 2,600 lawsuits invoking the federal Clean Water Act,¹⁵⁵ over 1,200 lawsuits invoking the Endangered Species Act, over 1,500 lawsuits against the U.S. Forest Service, and over 750 lawsuits against the federal Bureau of Land Management. Fisheries management thus, comparatively, still operates largely as environmental law without the courts.

Interestingly, however, the pace of litigation under the Magnuson-Stevens Act (an average of 7.35 cases per year) is roughly equivalent to litigation under the Outer Continental Shelf Lands Act,¹⁵⁶ which governs offshore oil and gas leasing on the federal Outer Continental Shelf and which has been invoked in

155. 33 U.S.C. §§ 1251–1388 (2012).

156. 43 U.S.C. §§ 1331–1356b (2012).

about 517 cases since 1953, an average of 8.2 cases per year. In contrast, the Mining Act of 1872,¹⁵⁷ which governs mining claims on terrestrial federal public lands, has prompted less than 50 cases. These numbers, rough as they are, suggest that the role of litigation in federal statutory natural resource allocation more generally could be a fruitful topic of further investigation.

Second, contrary to many popular and even official perceptions, fishermen bring (and always have brought) more federal marine fisheries lawsuits than any other group. As the figures and table in Part IV reveal, the four other major subgroups of litigators are states (against the federal government, as regulators in their own right, and as representatives of local fishermen's interests); tribes; the federal government in its enforcement capacity; and environmental organizations. Even though litigation by environmental groups increased significantly after 1996, their lawsuits still constitute slightly less than a third of the fisheries cases decided by federal courts, while 54% of the cases decided since 1996 were brought by fishers or their representatives.

Third, under both the original Magnuson-Stevens Act and its two major amendments, by far the largest percentage of cases are direct challenges to FMPs. This result makes sense, given that FMPs are the front lines of federal fishery management, defining exactly how a particular fishery will meet the national standards, prevent overfishing or rebuild overfished fish stocks, protect essential fish habitat, and avoid bycatch, while simultaneously defining the limitations with which fishers will have to comply. Challenges to FMPs are concentrated along the East Coast and, to a lesser extent, in the Gulf of Mexico and involve a variety of fisheries.¹⁵⁸ Challenges to Pacific Ocean fisheries management, in contrast, tend to concentrate on a very few fisheries, such as the West Coast groundfish fishery and the Hawaiian longline fishery.¹⁵⁹ Further

157. 30 U.S.C. §§ 21–54 (2012).

158. *See generally, e.g.*, *Stinson Canning Co. v. Mosbacher*, 731 F. Supp. 32 (D. Me. 1990) (involving the Northeast Multispecies FMP); *Islamorada Charter Boat Ass'n v. Verity*, 676 F. Supp. 244 (S.D. Fla. 1988) (involving the King Mackerel FMP); *United Boatmen of N.J. v. Mosbacher*, No. CIV. A. 90-2089(JCL), 1992 WL 13197 at *1 (D.N.J. Jan. 24, 1992) (involving the Atlantic Bluefish FMP); *Organized Fishermen of Fla., Inc. v. Franklin*, 846 F. Supp. 1569 (S.D. Fla. 1994) (involving the Snapper-Grouper FMP); *J.H. Miles & Co. v. Brown*, 910 F. Supp. 1138 (E.D. Va. 1995) (involving the FMPs for surf clams and ocean quahogs); *Hadaja, Inc. v. Evans*, 263 F. Supp. 2d 346 (D.R.I. 2003) (involving the Tilefish FMP); *Medeiros v. Vincent*, 431 F.3d 25 (1st Cir. 2005) (involving the interstate FMP of Atlantic States Marine Fisheries Commission); and *United Boatmen v. Locke*, CIV. A. No. 09-5628, 2011 WL 765950, at *1 (D.N.J. Feb. 25, 2011) (involving the Black Sea Bass FMP).

159. *See generally, e.g.*, *Vietnamese Fishermen Ass'n of Am. v. California Dep't of Fish & Game*, 816 F. Supp. 1468 (N.D. Cal. 1993) (involving the Pacific Groundfish FMP); *Nat. Res. Def. Council v. Evans*, No. C 01-0421 JL, 2004 WL 2271595, at *1 (N.D. Cal. Mar. 29, 2004) (same); *Fishermen's Finest, Inc. v. Locke*, 593 F.3d 886 (9th Cir. 2010) (involving the Groundfish FMP for the Bering Sea and Aleutian Islands, Alaska); *Hawaii*

investigation of these regional differences could reveal insights not just into fisheries litigation, but also into varying approaches to fisheries management and variations in fishery cultures.

Finally, while our empirical analysis strongly suggests that the Sustainable Fisheries Act significantly shifted some portion of Magnuson-Stevens Act implementation from the purely administrative arena to the courts, it also suggests that the 2006 Reauthorization Act acted more to add to the specific issues that courts address rather than to again significantly change litigation patterns under the Magnuson-Stevens Act (compare Figures F and G). This observation reinforces the suggestions of both Gehan and Hallowell and Iudicello and Lueders that there is a “new normal” of litigation under the Magnuson-Stevens Act, in which each new amendment will alter the exact topics but not the fundamental patterns of fishery management litigation. Of course, whether these patterns hold in response to future amendments will depend in part on what Congress does in those amendments, but our empirical analysis of the litigation responses to the 1996 and 2006 amendments now provides two baselines to help evaluate the impact of future amendments.

Again, however, these preliminary results would benefit considerably from further contextualization, including a finer-grained breakdown of litigation patterns than we have presented here and comparisons to overall trends in environmental and natural resources litigation. Indeed, our investigation of fisheries-related litigation suggests several broader studies of environmental and natural resources law through the lens of litigation and begs several important questions about the relationship of federal fisheries litigation not just to changes in the law itself but also to broader social, economic, and scientific developments.

Longline Ass'n v. Nat'l Marine Fisheries Serv., 288 F. Supp. 2d 7 (D.D.C. 2003) (challenging the Pelagics FMP); Leatherback Sea Turtle v. Nat'l Marine Fisheries Serv., No. 99-00152 DAE, 1999 WL 33594329, at *1 (D. Haw. Oct. 18, 1999) (alleging that the Hawaii Longline Fishery violated the Endangered Species Act).

COMMENTS ON FISHERIES MANAGEMENT WITHOUT COURTS

DONNA R. CHRISTIE*

Thank you for inviting me to participate in this excellent *Environmental Law Without Courts* Symposium and for giving me the opportunity to comment on the issues raised by Robin Craig and Erin Ryan on fisheries management and the courts.¹ I will take my cue from Ryan and address three points relevant to the discussion: (1) Did the original 1976 Fishery Conservation and Management Act (1976 Act) create a framework for management without the courts?; (2) Why did the role of the courts grow after the 1996 Sustainable Fisheries Act?; and (3) Is it realistic to anticipate fisheries management without courts under the current provisions of the Magnuson-Stevens Act? Like Ryan, I hope I will be allowed, as an avid observer of fishery management since 1976, to speculate on some points.

As Craig and Danley pointed out, the 1976 Magnuson-Stevens Fishery Conservation and Management Act (1976 Act or Act) was certainly intended to operate independently of the courts. The goal of 1976 Act was, first and foremost, to extend U.S. jurisdiction over marine resources to 200-miles offshore in order to exclude foreign fishing in U.S. coastal waters.² After World War II, foreign fishing in U.S. coastal waters increased dramatically, and distant water, technologically sophisticated foreign fishing fleets severely overexploited fisheries beyond three miles offshore. The small U.S. domestic fishing fleet could not compete for the depleting resources.³ The focus of the Act was on protection and development of this small, but politically potent,⁴ industry, rather than conservation of fisheries resources. The widely accepted assumption was that once the

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1. Robin K. Craig & Catherine Danley, *Federal Fisheries Management: A Quantitative Assessment of Federal Fisheries Litigation Since 1978*, 32 J. OF LAND USE & ENVTL. L. 381 (2017); Erin Ryan, *Fisheries Management Without Courts*, 32 J. OF LAND USE & ENVTL. L. 431 (2017).

2. 16 U.S.C. § 1811(a) (2012).

3. See generally Harry N. Scheiber, *Ocean Governance and the Marine Fisheries Crisis: Two Decades of Innovation—and Frustration*, 20 VA. ENVTL. L.J. 119, 119–21 (2001) (discussing the history of overexploitation of fisheries off U.S. coasts after WWII by foreign fishers due to the “industrialization of fishing vessels,” the emergence of “giant factory ships,” and “a rapidly increasing tonnage of fishing vessels”).

4. David Dana described the fishing industry as a “concentrated minority” capable of exerting disproportionate political force in the regulatory process, and their “geographic concentration afford[ed] them the special benefit of being an indispensable constituency to at least some local, state, and federal officials.” David A. Dana, *Overcoming the Political Tragedy*

pressure of foreign boats no longer existed in U.S. coastal waters, fish stocks would recover sufficiently to maintain the domestic fishing industry and allow it to develop and grow.⁵ Consequently, conservation measures included in the 1976 Act were largely an afterthought. The few resource protection measures that were authorized were mostly discretionary and not subject to challenge by environmental groups.⁶

The Act's unique self-government by the fishing industry⁷ also suggested a limited role for the courts. The eight regional Fishery Management Councils (FMCs) are responsible for development of fishery management plans (FMPs) that not only establish management policies for how, when, where, and how many fish are caught, but also allocate the catch among users. The FMC submits a FMP to the Secretary of Commerce for approval and implementation through appropriate regulations. The Secretary has little discretion at this point⁸ and *must approve or partially approve* the FMP if it is consistent with the Act and other relevant law.⁹ It

of the Commons: Lessons Learned from the Reauthorization of the Magnuson Act, 24 *ECOLOGY L.Q.* 833, 836 (1997).

5. Based on these assumptions, the U.S. government provided tax incentives and other assistance and subsidization that led to massive overcapitalization of the industry. *See generally*, EUGENE H. BUCK, CONG. RESEARCH SERV., 35-296 ENR, OVERCAPITALIZATION IN THE U.S. COMMERCIAL FISHING INDUSTRY 7 (1995).

6. For example, the Act provided that: “[t]he Secretary *may* prepare a fishery management plan . . . if . . . the appropriate [Fishery Management] Council fails to develop and submit to the Secretary, *after a reasonable period of time*, a fishery management plan for such fishery . . . if such fishery requires conservation and management” 16 U.S.C. § 1854(c)(1)(A) (2012) (emphasis added). Challenges under the Administrative Procedure Act are precluded where “agency action is committed to agency discretion by law.” 5 U.S.C. § 701(a)(2) (2012). The 1976 Act contained no citizen suit provisions.

7. The Act does provide for appointment of individuals other than resource users to the Fishery Management Councils (FMCs). Other people who are “knowledgeable regarding the conservation and management, or the commercial or recreational harvest, of the fishery resources of the geographical area concerned” may be nominated for the FMCs by governors and appointed by the Secretary of Commerce. 16 U.S.C. § 1852(b)(2)(A) (2012). In practice, however, resource users have dominated FMC membership. *See* Thomas A. Okey, *Membership of the Eight Regional Fishery Management Councils in the United States: are special interests over-represented?*, 27 *MARINE POL’Y* 193, 197 (2003) (commercial fishing interests comprised the largest collective on regional FMCs between 1990 and 2001); *see also* Dana, *supra* note 4, at 834 (industry participants dominate the regulatory entity, resulting in capture of the entity by those with an interest in overuse of the resource).

8. The Secretary’s action is limited to approving or partially approving the FMP. There is no authority for the Secretary to make changes to the plan to bring it into compliance. If a plan is not approved or partially approved, it is resubmitted to the FMC. The FMC *may* submit a revised plan but is not required to do so. 16 U.S.C. § 1854(a)(4) (2012). The Secretary has discretionary authority to develop a plan if the plan is not revised and resubmitted in a reasonable time. *Id.* § 1854(c)(1)(A). But this authority was seldom, if ever exercised. The provisions of the Magnuson-Stevens Act now *require* the Secretary to prepare a FMP when a FMC does not submit a FMP for rebuilding an overfished fishery within two years of notification by the Secretary of the overfished status of the fishery, the Secretary is required to prepare a FMP. *Id.* §§ 1854(c)(3), (5).

9. *Id.* § 1854(a)(3). The regulations must be published and the Act does provide for a sixty-day comment period before the Secretary acts. *Id.* § 1854(a)(1)(B). A default provision provides: “If the Secretary does not notify a [FMC] within 30 days of the end of the comment

is the Secretary's implementing regulations, rather than the FMC's plan *per se*,¹⁰ that is reviewable by the courts, but only if a petition is made within thirty days of publication of the regulation.¹¹ Because the Secretary's authority to disapprove an FMP is so circumscribed by the Act, the bases for challenging the regulations are also limited. And a challenger is further discouraged by the deference courts afford to agency decisions applying the agency's technical or scientific expertise.¹² The environment created by the 1976 Act left little role for the courts in fishery management.

One can imagine that the Secretary of Commerce often experienced tensions due to the lack of discretion afforded by the Act. The dilemma was often approval of a less than adequate FMP or no FMP at all for a seriously depleted fishery.¹³ While many commentators attributed approval of poor FMPs to capture of the process and the agency by the fishing industry,¹⁴ in many cases approval of such plans may have been a reasonable judgment by the agency given the alternative of no regulation and little means to coerce FMC revision of the plan. Such circumstances did, however, provide one of the few realistic opportunities for challenge of the FMP by environmental interests. The 1996 Sustainable Fisheries Act (SFA) amendments addressed this particular dilemma in regard to the most stressed fisheries by requiring the Secretary to prepare an FMP where an

period of the approval, disapproval, or partial approval of a plan or amendment, then such plan or amendment shall take effect as if approved." *Id.* § 1854(a)(3)(C).

10. 16 U.S.C. § 1855(d) (2012). A Department of Justice Opinion takes the position that FMCs do not have independent legal status to be sued. Memorandum from Nat'l Oceanic & Atmospheric Admin. Office of Gen. Counsel, Litigation Authority of Regional Fishery Management Councils, No. 91 (1980) (on file with author) (adopting Dep't of Justice opinion written by Larry J. Simms on Sept. 17, 1980); *see also* Miriam McCall, *The View from Ground Zero: Government as Defendant, Courts as Fishery Managers*, 7 OCEAN & COASTAL L. J. 35, 38 (2001).

11. 16 U.S.C. § 1855(f) (2012).

12. Marian Macpherson & Mariam McCall, *Judicial Remedies in Fisheries Litigation: Pros, Cons, and Prestidigitation?*, 9 OCEAN & COASTAL L. J. 1, 6–7 (2003).

13. As noted by Macpherson and McCall, the default in management of offshore fisheries resources is unregulated fisheries. Without affirmative agency action, an unregulated fishery simply remains subject to "open access, allowing unrestricted harvests." *Id.* at 5–6. This circumstance explains why much of the litigation surrounding fisheries involves claims under other acts, like the Endangered Species Act or the Marine Mammal Protection Act, which would afford opportunities to enjoin harmful fishing practices.

14. *See* Dana, *supra* note 4, at 834 (asserting that industry participants dominate the regulatory entity, resulting in capture of the entity by those with an interest in overuse of the resource); *see also* Okey, *supra* note 7, at 194 (FMCs dominated by user groups capture the regulatory or management process, leading to decisions that "maximize short-term profit at the expense of sustainability"). Dana has referred to the FMC system as a "political tragedy of the commons," because the industry arguably has captured not only the regulatory process, but also the regulators and legislative process. Dana, *supra* note 4, at 834. The influential Pew Oceans Commission went so far as to say that due to capture, government regulators believe their "role is to defend the interests of the regulated community rather than promote the public interest." PEW OCEANS COMM., AMERICA'S LIVING OCEANS: CHARTING A COURSE FOR SEA CHANGE 44 (2003).

FMC does not address a plan for rebuilding an overfished fishery within one year of notification by the Secretary of its overfished status.¹⁵

Ryan has explained that fisheries management is a complicated process, not well suited to the legislature or the courts. She is undoubtedly correct in her assessment of the complexity of the systems and the science involved, and the inability of Congress or the courts to deal with such a “highly technical, data-driven, fluid, and adaptive project.”¹⁶ Craig and Danley noted the legislative history suggesting that Congress envisioned fishery management as primarily a science-based administrative assessment.¹⁷ Congress chose Maximum Sustainable Yield (MSY),¹⁸ the dominant concept in fishery management for several decades, as the scientific goal of the 1976 Act.¹⁹ The strength of relying on such an objective scientific concept is that it avoids political, economic, and social issues related to fisheries and focuses on the resource rather than the users.²⁰ But Congress did not stop there: National Standard 1, for example, required that MSY be adjusted—up or down²¹—in light of social, economic, and ecological factors²² to achieve an “optimum yield” (OY)²³ for the fishery. This sweepingly broad public policy that literally promised something for everyone assured that either the industry or conservationists would be dissatisfied with virtually every determination of the level of exploitation of a fishery. As pointed out by Craig, Danley, and Ryan, other national standards exacerbated these tensions by adopting policies and standards for FMPs that seemed to conflict on their face.²⁴ Without the limitations

15. The 2006 reauthorization of the Act amended the section to require the FMP to be developed and implemented within two years. 16 U.S.C. § 1854(e)(5) (1996) as amended by Pub. Law 109-479, § 104(c)(5) (2007).

16. See Ryan, *supra* note 1, at 451.

17. Craig & Danley, *supra* note 1, at 383.

18. Maximum sustainable yield (MSY) is defined in the guidelines for National Standard 1, issued in 1998, as “the largest long-term average catch or yield that can be taken from a stock or stock complex under prevailing ecological and environmental conditions.” 50 C.F.R. § 600.310(c)(1) (2004); see also Ryan, *supra* note 1, at 435–36.

19. 16 U.S.C. § 1802(33)(B) (2012).

20. See Harry N. Scheiber & Christopher J. Carr, *From Extended Jurisdiction to Privatization: International Law, Biology, and Economics in the Marine Fisheries Debates, 1937–1976*, 16 BERKELEY J. INT’L L. 10, 25 (1998).

21. Because this approach was so unsuccessful in maintaining or restoring fish stocks, the 1996 SFA amended the MSA to determine optimum yield (OY) on the “basis of maximum sustainable yield, as reduced by any relevant social, economic, or ecological factor.” 16 U.S.C. § 1802(33)(B) (2012) (emphasis added). Optimum yield must now also provide for rebuilding of overfished stocks. *Id.* § 1802(33)(C).

22. Magnuson-Stevens Act, Pub. L. No. 94-265, Title III, § 3, 90 Stat. 335 (1976).

23. “Optimum yield” is the “amount of fish which . . . will provide the greatest overall benefit to the Nation, particularly with respect to food production and recreational opportunities, and taking into account the protection of marine ecosystems” 16 U.S.C. § 1802(33)(A) (2012).

24. Craig & Danley, *supra* note 1, at 419; Ryan, *supra* note 1, at 443–46.

on challenging FMPs discussed above, Congress's "ambitious but ambiguous regulatory design, [and] confusion of scientific and political visions"²⁵ would certainly have led to more litigation in the first decades of the Act.

The 1996 reauthorization of the MSA by the SFA²⁶ was the opportunity for a "reality check." In two decades of "management," one fishery after another collapsed under the intensive fishing effort of an overcapitalized U.S. fishing fleet. Without the new goals, time limits, and procedural and structural reforms regarding, particularly the prohibition of overfishing and the rebuilding of overfished stocks imposed by the SFA,²⁷ it appeared that many stocks would become economically, or even ecologically, extinct. And although the SFA continued to send conflicting signals with a new National Standard 8 about protecting the viability of fishing communities and minimizing economic impacts of regulation on these communities,²⁸ the SFA for the first time effectively prioritized the National Standards by making it clear that National Standard 8 could only be applied "consistent with the conservation requirements of this Act (including the prevention of overfishing and rebuilding of overfished stocks)."²⁹

In an accounting of the amount of litigation following the enactment of the SFA, Suzanne Iudicello and Sherry Bosse Lueders assessed that "litigation against NMFS increased from one or two cases per year to a high of twenty-six lawsuits in 2001. Prior to 1997, the agency had sixteen open cases; by 2000 it had more than 100."³⁰

25. Scheiber, *supra* note 3, at 127.

26. Pub. L. No. 104-297, 110 Stat. 3559 (Oct. 11, 1996) (amending 16 U.S.C. §§ 1801–1884).

27. 16 U.S.C. § 1854 (e)(3) (2012).

28. *Id.* § 1851(a)(8) (2012).

29. *Id.* In *Natural Resources Defense Council v. Daley*, the Court of Appeals of the D.C. Circuit emphasized that the duty to prevent overfishing under National Standard 1 takes precedence over National Standard 8:

As an initial matter, we reject the District Court's suggestion that there is a conflict between the Fishery Act's expressed commitments to conservation and to mitigating adverse economic impacts. Compare 16 U.S.C. § 1851(a)(1) (directing agency to "prevent overfishing" and ensure "the optimum yield from each fishery"); *with id.* § 1851(a)(8) (directing agency to "minimize adverse economic impacts" on fishing communities). The Government concedes, and we agree, that, under the Fishery Act, the Service must give priority to conservation measures. It is only when two different plans achieve similar conservation measures that the Service takes into consideration adverse economic consequences. This is confirmed both by the statute's plain language and the regulations issued pursuant to the statute.

Nat. Res. Def. Council v. Daley, 209 F.3d 747, 753 (D.C. Cir. 2000); *see also*, *N.C. Fisheries Ass'n v. Gutierrez*, 518 F. Supp. 2d 62 (D.C. Cir. 2007).

30. Suzanne Iudicello & Sherry Bosse Lueders, *A Survey of Litigation Over Catch Shares and Groundfish Management in the Pacific Coast and Northeast Multispecies Fisheries*, 46 ENVTL. L. 157, 207 (2016) (citations omitted).

There seems to be a general consensus about why litigation greatly increased after the 1996 SFA amendments to the MSA. While other factors also contributed,³¹ Congress's mandate that the FMCs and Secretary "shall prepare and implement" FMPs that will "end overfishing immediately in [overfished] fisher[ies], . . . rebuild [overfished] stocks . . .," and "prevent overfishing [in fisheries] identified as approaching an overfished condition,"³² backed with enforceable time limits and procedures, provided the major driver for litigation. Fishermen were confronted with regulation with the potential to shut down fisheries for years,³³ and environmental groups were armed with new enforceable, nondiscretionary, conservation-related requirements and procedures with deadlines, as well as science that demonstrated that around 90% of U.S. fish stocks were overfished and over 80% were experiencing overfishing.³⁴ Under these circumstances, more litigation by both fishermen and environmental groups was hardly surprising.³⁵

Litigation can lead to improvement in management by the National Marine Fisheries Service (NMFS) and the Councils by clarifying ambiguous policies and goals and assuring timely and rational implementation of MSA requirements. Litigation highlighting problems in implementation of the MSA had led not only to addressing specific deficiencies in applying the Act, but also to "internal and external reviews, budget increases, and regulatory streamlining efforts [that] improved [the agency's] consistency in meeting administrative and procedural requirements, thereby improving its won-lost record in court"³⁶ and presumably its effectiveness in managing the resource. Commentators who contended that the agency and the process had been captured by the industry would argue that the current trend toward recovery of most fisheries³⁷ was only assured by vigorous litigation.

31. See Macpherson & McCall, *supra* note 12, at 2–3.

32. 16 U.S.C. § 1854 (e)(3) (2012) (emphasis added).

33. For example, in *A.M.L. Int'l v. Natural Resources Defense Council*, 107 F.Supp. 2d 90 (2000), participants in the spiny dogfish fishery were faced with closure of the fishery for at least five years. Also recall that the Secretary was mandated to develop and implement these FMPs if the FMCs failed to do so within two years.

34. See THE PEW CHARITABLE TRUSTS & OCEAN CONSERVANCY, *THE LAW THAT'S SAVING AMERICAN FISHERIES: THE MAGNUSON-STEVENSON FISHERY CONSERVATION AND MANAGEMENT ACT 13* (2013).

35. The 2006 reauthorization of the MSA introduced more changes and management concepts to the act, including the extremely significant requirement for annual catch limits and the controversial "catch shares" provisions. Iudicello and Lueders note, however, that catch share litigation is "an insignificant component" with many challenges focusing on issues traditionally litigated under the 1976 or 1996 provisions. Iudicello & Lueders, *supra* note 30, at 206–07.

36. *Id.* at 207 (citations omitted).

37. The 2015 status of U.S. fisheries indicated that only 16% of fisheries were overfished, 9% were experiencing overfishing, and 39 stocks have been rebuilt. See *Status of U.S.*

But litigation imposes incredible costs on both the government and plaintiffs. Congress had focused primarily on the direct costs in relation to agency resources. There are obvious costs simply in the time and money involved in litigation that is so heavily dependent on science and information about the resource. Susan Hanna further summarized transactional cost in fisheries litigation as follows:

Transaction costs are the costs of arranging everything that contributes to management: gathering information, negotiating among all the different interests, designing the regulations, implementing the regulations, monitoring compliance with the regulations, and enforcing the regulations. Transaction costs are costs that are absorbed by agency staff, council staff, commercial fishermen, recreational fishermen, scientific advisers, and all other participants.³⁸

In terms of the agency in particular, lawyers and scientists working on defending lawsuits are not available for ongoing management responsibilities.³⁹ Decisions are delayed; resources may suffer from the delay. Hanna also explains a different kind of indirect costs of litigation. Participants become polarized, damaging a “system based on participation, negotiation, interaction, and communication.”⁴⁰ This also leads to loss of credibility of the regulators and scientists, loss of morale by the regulators, and “erosion of legitimacy” of the fishery management process.⁴¹ Finally, litigation diverts resources from focusing on the root causes of problems and the long term objectives of management.⁴²

Is it likely that the MSA will evolve into a program that can operate largely without the courts? Congress took some additional action to limit litigation in 2006 in relation to fisheries cases raising National Environmental Policy Act (NEPA)⁴³ issues.⁴⁴ The MSA

Fisheries, NOAA FISHERIES, http://www.fisheries.noaa.gov/sfa/fisheries_eco/status_of_fisheries/index.html (last visited Apr. 17, 2017).

38. Susan Hanna, *More Than Meets the Eye: The Transaction Costs Of Litigation*, 7 OCEAN & COASTAL L. J. 13, 14 (2001).

39. See McCall, *supra* note 10, at 37; Hanna, *supra* note 38, at 15.

40. Hanna, *supra* note 38, at 15–16.

41. *Id.* at 16.

42. *Id.* at 16–17.

43. National Environmental Policy Act, 42 U.S.C. § 4231 *et. seq.* (2012).

44. 16 U.S.C. § 1854 (i)(1) requires NMFS to revise its NEPA procedures to:

(A) conform to the time lines for review and approval of fishery management plans and plan amendments under this section; and (B) integrate applicable environmental analytical procedures, including the time frames for public input, with the procedure for the preparation and dissemination of fishery management plans, plan amendments, and other actions taken or approved pursuant to this chapter in order

now provides that the agency's revised procedures to integrate FMP and NEPA review "shall be the sole environmental impact assessment procedure for fishery management plans, amendments, regulations, or other actions taken or approved pursuant to [the MSA]".⁴⁵ But each time Congress reauthorizes the Act, it adds new policies, definitions, and requirements that must inevitably go through a process of clarification by the agency and, often, eventually by the courts. Perhaps "inevitably" is the key word, as Craig and Danley's article points out, referencing other authors including ones with long experience in the agency.⁴⁶ Litigation is simply a part of the system.

There is a saying, though, that nothing succeeds like success, and perhaps this is the key to fisheries management without the courts. The lessons learned in the first two decades of fisheries management have led to improvements in the process and great strides in the recovery of fish stocks during the second two decades. If this progress continues, perhaps the next two decades will achieve robust fish stocks flourishing in healthy ecosystems and supporting a sustainable fishing industry with no need for intervention by the courts. Dream on!

to provide for timely, clear and concise analysis that is useful to decision makers and the public, reduce extraneous paperwork, and effectively involve the public.

16 U.S.C. § 1854 (i)(1) (2012).

45. *Id.* at § 1854(i)(2). In some cases, NEPA review had become a sort of court-imposed surrogate for an ecosystem-based approach to management involving years of litigation.

Adequate environmental assessment has been ordered in cases concerning essential fish habitat, rebuilding plans for overfished stocks, and amendments to an FMP affecting an endangered species. One court has ordered that the EIS must contain analysis of the impacts of the FMPs "as a whole on the North Pacific ecosystem."

The courts' use of NEPA to "jump start" NOAA Fisheries into applying an ecosystem-based approach to management decisions, while justified under NEPA, does not provide a reasoned, incremental approach to ecosystem management based on an adequate framework of data, policies, and guidelines.

Donna R. Christie, *Living Marine Resources Management: A Proposal for Integration of United States Management Regimes*, 34 ENVTL. L. 107, 137-38 (2004).

46. See Craig & Danley, *supra* note 1, at 404.

**FISHERIES WITHOUT COURTS:
HOW FISHERY MANAGEMENT REVEALS
OUR DYNAMIC SEPARATION OF POWERS**

ERIN RYAN*

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I. INTRODUCTION

This essay adds a perspective from fisheries governance to the broader inquiry into the respective roles of judicial, legislative, and executive decision-making in modern environmental law. It comments on Robin Craig and Catherine Danley’s quantitative assessment of litigation under the federal Fishery Conservation and Management Act (FCMA),¹ which concludes, among other things, that the FCMA has generally prompted less judicial intervention than other environmental laws.² Craig and Danley have contributed

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1. Magnuson-Stevens Fishery Conservation and Management Act, Pub. L. 94-265, 90 Stat. 331 (1976), and Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Pub. L. 109-479, 120 Stat. 3575 (2007) [hereinafter collectively FCMA] (each codified in scattered sections of 16 U.S.C.).

2. Robin K. Craig & Catherine Danley, *Federal Fisheries Management: A Quantitative Assessment of Federal Fisheries Litigation Since 1978*, 32 J. OF LAND USE & ENVTL. L. 381 (2017). While fisheries management has not always been viewed within the ambit of environmental law, Congress has increasingly required it to contend with issues of scarcity, sustainability, biodiversity, and habitat protection that are conventionally associated with environmental regulation.

a valuable data set about federal fisheries litigation, one that invites further analysis of their findings and the implications of these findings for the horizontal separation of powers in environmental law.

This essay takes up that invitation to consider three key questions raised by their research: (1) Why is the judicial role in fisheries management small in comparison to the executive role? (2) When litigation is brought, why are fishery management plans the most frequent targets of litigation? And finally, (3) why is it that even with so many fisheries in decline, members of the fishing industry bring litigation more often than environmentalists?

I begin with a quick foray into fisheries science and economics to establish the fundamental paradox of fisheries management, in which fishery managers strive to set a sustainable yield of extraction that accounts for the various ways that extraction can itself alter the resource, requiring successively recursive rounds of regulatory adjustment. This analysis reveals why fisheries management is ideally suited to the features of administrative governance, in contrast to the comparative advantages of legislative or judicial oversight, because executive branch actors can generally respond more rapidly and adaptively to a fluid stream of highly technical data.

Nevertheless, when FCMA litigation does arise, fishery management plans become the most frequent targets of suit because the legislature has statutorily deferred unresolved policy clashes to the executive branch—presumably because executive actors are best positioned to resolve them in distinctive regional fisheries, and in consultation with relevant local stakeholders. When this litigation does arise, public choice theory helps explain why professional fishers³ routinely outpace environmentalists to the courtroom, even though long-term conservation interests are often more imperiled than the short-term economic interests usually championed by industry participants.

Despite these predictable problems, I conclude that administrative fisheries management is probably still our best bet, even if certain aspects of the FCMA could bear improvement, including improved stakeholder representation for conservation interests.⁴

3. In this piece, I use the term “fishers” to advance the goal of using gender-neutral language in academic literature whenever possible. But I also acknowledge the complexity of the choice, knowing that many female captains prefer to be called “fishermen,” which they see as a gender-neutral term.

4. Scholars and advocates have suggested alternative configurations of administrative fisheries management, some of which warrant consideration. See, e.g., Josh Eagle & Amanda Kuker, *Public Fisheries*, 15(1) *ECOLOGY & SOCIETY* 10 (2010) [hereinafter Eagle & Kuker, *Public Fisheries*] (proposing a move away from the “neo-Pinchotian” approach taken by the FCMA and toward a new model of public ownership); Josh Eagle, James N. Sanchirico & Barton H. Thompson Jr., *Ocean Zoning and Spatial Access Privileges: Rewriting the Tragedy of the Regulated Ocean*, 17 *N.Y.U. ENVTL. L.J.* 646 (2008) [hereinafter Eagle, Sanchirico &

Indeed, Craig and Danley's research reveals changing litigation trends after the Sustainable Fisheries Act of 1996⁵ and the Magnuson-Stevens Reauthorization Act of 2006⁶ that demonstrate the dynamic interplay between all three branches of government in fisheries management. Hopefully, this pattern of engagement will remain vital in fisheries management—and ideally, wider environmental law—appropriately erring on the side of administrative process while maintaining a healthy horizontal balance of power.

II. WHY IS FISHERIES MANAGEMENT SO ADMINISTRATIVE?

I begin with the broadest question at issue: why is it that fisheries management is so heavily administrative in nature? As Craig and Danley describe it, U.S. fishery governance has been structured to operate primarily through executive oversight, with broad legislative commands and minimal judicial intervention.⁷ The principal U.S. law governing fisheries, the Magnuson-Stevens Fishery Conservation and Management Act (FCMA),⁸ has been characterized by its own administrators as “designed to encourage user-group self-regulation within legislatively prescribed scientific and policy-based parameters.”⁹ Craig and Danley's research confirms that most of the work takes place in neither the halls of Congress nor the courtroom, but within the complex machinery of the administrative state. Yet why is this so?

A. *The Paradox of Fisheries Management*

To demonstrate why fisheries management is uncommonly suited for executive oversight, a brief overview of fisheries science may help.¹⁰ Our exposition begins with a critical baseline assumption that fishery managers use in doing their job: the “carrying

Thompson, *Ocean Zoning*] (advocating an “ocean zoning” model of fisheries management more akin to public lands management).

5. Sustainable Fisheries Act, Pub. L. 104-297, 110 Stat. 3559 (1996) (codified at 16 U.S.C. §§ 1803, 1861, 1881–1883, 5107a, 5107b (2012)).

6. Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Pub. L. 109-479, 120 Stat. 3575 (2007).

7. Craig & Danley, *supra* note 1, at 381 (“Unlike many federal environmental and natural resources laws, Congress actually designed federal fisheries management under the Magnuson-Stevens Fisheries Conservation and Management Act[] to operate as environmental law without the courts.”).

8. *Supra* note 2.

9. Craig & Danley, *supra* note 1, at 382 (quoting Marian Macpherson & Mariam McCall, *Judicial Remedies in Fisheries Litigation: Pros, Cons, and Prestidigitation?*, 9 OCEAN & COASTAL L.J. 1, 4 (2003)).

10. See JAMES RASBAND, JAMES SALZMAN & MARK SQUILLACE, *NATURAL RESOURCES LAW AND POLICY*, 457–61 (2d ed. 2009) (providing an excellent primer on fisheries science, from which the present description is partially based).

capacity” of a fishery habitat, which describes the natural equilibrium level of a species within a habitat.¹¹ Whenever key environmental factors are kept constant in a given habitat, that habitat will support a constant biomass of a given fish population.¹²

While this premise works in theory, it can be hard to show in practice, because key environmental factors are almost never constant—especially in this age of climate instability.¹³ Nevertheless, the carrying capacity concept is important because it reveals a curious paradox in the task of fisheries management, dealing with how fishing itself changes the fishery resource in ways that require management consideration.

It is probably obvious why too much fishing can damage the resource. By depleting a population of fish at a rate that exceeds that species’ ability to reproduce, overfishing can cause the entire fishery to collapse.¹⁴ However, at least from the perspective of the fishing industry, a certain level of fishing can actually make the resource even more useful.¹⁵ In contrast to other natural resources, where extraction only depletes the resource (such as mining), it turns out that fish extraction can actually improve the fishery, at least from an economic perspective.¹⁶ The reason has to do with the different rates at which distinctive fish population structures are able to replenish to their carrying capacity within the constraints of a given habitat.

In an environment where there is no fishing (and absent other natural disturbances), a fish population will be characterized as a low productivity system in which large adults outcompete smaller juveniles for scarce food and habitat resources.¹⁷ Older fish grow more slowly, and though they can produce more eggs than younger

11. K. Blackhart, D.G. Stanton & A.M. Shimada, Nat’l Marine Fisheries Serv., *NOAA Technical Memorandum NMFS-F/SPO-69*, NOAA FISHERIES GLOSSARY 5 (rev. ed. June 2006), <https://www.st.nmfs.noaa.gov/st4/documents/FishGlossary.pdf> [hereinafter NMFS-F/SPO-69] (defining “carrying capacity” as “[t]he maximum population of a species that an area or specific ecosystem can support indefinitely without deterioration of the character and quality of the resource” and “[t]he level of use, at a given level of management, at which a natural or man-made resource can sustain itself over a long period of time.”).

12. *See id.*

13. Sarah M. Kutil, *Scientific Certainty Thresholds in Fisheries Management: A Response to Changing Climate*, 41 ENVTL. L. 233, 265–66 (2011); Diana L. Stram & Diana C.K. Evans, *Fishery Management Response to Climate Change in the North Pacific*, 66 J. OF MARINE SCI. 1633, 1636–37 (2009) (on climate change and fishery impacts).

14. PAMELA B. BAKER, FELIX G. COX & PETER M. EMERSON, *MANAGING THE GULF OF MEXICO COMMERCIAL RED SNAPPER FISHERY* (1998).

15. *Id.*

16. From an ecological perspective, extraction simply removes otherwise available biomass from the food web.

17. THEODORE PANAYOTOU, FOOD & AGRIC. ORG. OF THE U.N., *MANAGEMENT CONCEPTS FOR SMALL-SCALE FISHERIES: ECONOMIC AND SOCIAL ASPECTS*, FAO Fisheries Tech. Paper No. 228, FIPP/T228 (En), § 2 (1982).

fish,¹⁸ their use of existing resources limits the ability of juvenile fish to grow and reach reproductive age. Yet when fishing is introduced into the system, many of those large adults will be harvested. The removal of those large adults creates space for more juveniles to thrive, and all else equal, those juveniles will survive and grow more quickly than the older fish removed from the fishery.

In this way, fishing alters the average age and size structure of the population to create a more dynamic, high productivity system yielding greater economic returns for fishers.¹⁹ The fished system will have the same carrying capacity as the un-fished system—the same total biomass of fish in each environment—but the population that is being fished can replenish itself to carrying capacity faster, because its members are growing more quickly. That means that, at least in theory (and accounting for egg production rates among larger and smaller fish), you can take a steadier stream of fish out of the ecosystem and into the marketplace without spiraling the entire system into overfishing decline. (Good fishery management must also ensure that fishing technology and other aspects of the fishing activity does not itself damage the ecosystem—a separate but equally important concern.²⁰)

All of this leads to the great puzzle for fisheries management. Too much fishing is clearly a bad thing, as it prevents the renewal of the resource by interfering with reproduction. But perhaps surprisingly, too little fishing can actually leave “value on the table” economically, by facilitating the establishment of an economically suboptimal equilibrium. For this reason, a primary goal of fisheries management is to identify something of a sweet spot—the Goldilocks Level that allows neither too much nor too little fishing. Fishery managers call this magical sweet spot the “maximum sustainable yield,” or “MSY.”²¹

The MSY represents the ideal level of extraction in a fishery—the point at which managers are not allowing the kind of overfishing that causes populations to plummet toward fishery collapse, but neither are they leaving economic value on the table, by maintaining just enough fishing to enable the industry to reap the rewards

18. Mark A. Hixon, Darren W. Johnson & Susan M. Sogard, *BOFFFFs: On the Importance of Conserving Old-Growth Age Structure in Fishery Populations*, 71 *J. OF MARINE SCI.* 2171, 2172 (2014) (newer fisheries management science recognizes this reason to protect some of the largest adults).

19. *Id.*; See also RASBAND, SALZMAN & SQUILLACE, *supra* note 10, at 458.

20. See, e.g., Simon Jennings & Michael J. Kaiser, *The Effects of Fishing on Marine Ecosystems*, 34 *ADVANCES IN MARINE BIO.* 201 (1988).

21. NMFS-F/SPO-69, *supra* note 11, at 28.

of a high productivity system.²² It is the maximum amount of fish that can be taken out of the fishery without sacrificing either the biological sustainability or the economic efficiency of the system.²³

The challenge, of course, is that managers need a lot of information to plot this curve accurately, and that information is not always easily forthcoming. To set an accurate MSY, one needs to know a fair amount about both the targeted species of fish and the nature of the fishing operation. For example, to be able to forecast the rates of growth and reproduction of the target species, you need to know that species growth rate, fecundity, age at first spawning, ratio of males to females, growth rate, migratory habits, natural mortality, and so on.²⁴ You also need to know how much of these fish are being caught by fishers and how much effort it took to catch them, the ratio of males to females in the catch, the value of different size fish in the marketplace, and so on.²⁵ Some of this information is available from scientific research, but fishery managers also rely heavily on landings data, based on the catch that fishers bring back to shore.²⁶

This raises yet another problem for fisheries management—the dilemma of properly sequencing data and decision-making in time—which James Rasband, James Salzman, and Mark Squillace have explained in their useful treatment of fisheries management.²⁷ In a representative graph (see Figure 1) of fish stock versus fish catch over time, the Y-axis plots biomass and the X-axis plots time going forward. Read from the left, the first line is a population curve, representing the number of fish (in an overfished population) that are actually in the sea over the given span of time. The second curve describes catch biomass, as reported in landings data.

22. The MSY describes an ideal level of extraction within the traditional school of fisheries management, but this school has been critiqued for failing to account for all connections between a given fish population and the ocean ecosystem within which it is embedded. Important harms to the marine environment can be caused by fishing even when a fishery is perfectly managed for MSY. See Jennings & Kaiser, *supra* note 20.

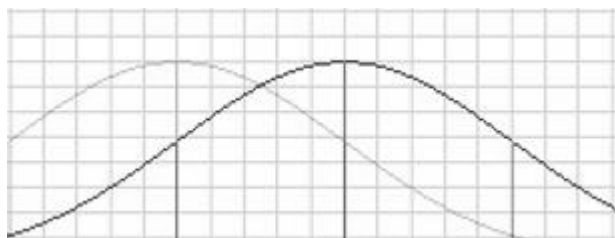
23. From the economic perspective, it is worth noting that the MSY describes a productivity maximum, and not necessarily the economically optimal extraction point for any particular fishing interest. That would require additional information about the costs of the fishing activity itself, and it might represent a different point on the yield curve.

24. Richard K. Wallace & Kristen M. Fletcher, *Understanding Fisheries Management* 6–7 (2d ed. 2001). See also RASBAND, SALZMAN & SQUILLACE, *supra* note 10, at 460.

25. See RASBAND, SALZMAN & SQUILLACE, *supra* note 10, at 458.

26. See, e.g., *Commercial Fisheries Statistics*, NAT'L MARINE FISHERIES SERV., <https://www.st.nmfs.noaa.gov/commercial-fisheries/index> ("Commercial Landings" section; last visited Apr. 2, 2017).

27. See RASBAND, SALZMAN & SQUILLACE, *supra* note 10, at 462.

Figure 1: Fish Stock vs. Fish Catch Over Time

As these authors have explained, the two lines reveal parallel curves, but curves that are displaced in time—because, at least for a period of time, fishers chasing a declining catch can sustain and even increase their yield with more powerful fishing technology. Eventually, the catch will reveal the declining population, but not necessarily in time for management decisions to adapt to the crisis. There may be an interim, depicted here as the space between the first two vertical markers, in which fishers are able to continue harvesting more fish with more effective fishing gear (gear that improves the ratio of catch to each unit of expended effort by the fisher), even after the initial decline in overall population begins.²⁸

Nevertheless, even better fishing technology cannot conjure more actual fish, and so the decline in population will eventually be reflected in a reduced catch. Shown here to the right of the second vertical marker, landings data will ultimately reflect the decline beneath the waves, but substantially after that decline first begins, and well into the downward spiral of the population. As the graph reveals, when a fishery begins to collapse, there may be a devastating period during which landings data will falsely suggest that fish stocks are increasing, even as they are actually decreasing.²⁹ Which means that, once a fishery is in collapse, we often do not even find out about it until the decline is fairly serious. And by then, fishery managers have to respond very quickly to have any hope of meaningful impact.

B. Fisheries and the Administrative State

This brings us squarely back to the question with which we began, revealing why fisheries management is overwhelmingly the work of the administrative state. Fisheries management is largely the province of the executive branch because—as the foregoing

28. *Id.*

29. *Id.*

discussion of fisheries science and economics demonstrates—it is an exquisitely technical, data-driven, fluid, and adaptive project, often requiring fast action and changes in course.

Indeed, day-to-day fishery management presents the paragon example of the kind of science-based, wonky administrative governance that is appropriately delegated to subject matter experts, and to operate with minimal judicial intervention. It is hard enough that the resource continually shifts as key environmental factors in the habitat change the carrying capacity. In addition, the fishing activity itself changes the resource, and management choices can dramatically change the resource as well, in ways that can occasionally confound expectations. While many natural resources respond to management recursively this way, few do so as quickly as fisheries can, as unforgivingly, or in ways that are as patently difficult to measure.

Good fishery management must therefore adapt continually along multiple dimensions of variability and self-referential change, ideally on an ongoing basis. It is the fluidity and adaptive qualities of fisheries management that makes the minutiae so ill-suited for decision making by, for example, the judiciary—which, among other problems, simply takes too long. The critical data for decision-making will often be stale by the time a court can even get to it. To be sure, judges help interpret important statutory directives with big-picture implications for fisheries management—for example, what Congress meant by “overfishing” when it directed agencies to prevent it in on U.S. waters.³⁰ However, the more tedious decisions required by fishery management tend not to raise the questions of linguistic interpretation, legislative intent, and retrospective fact-finding that the judiciary is best equipped to answer. Moreover, the feedback loop that arises between management choices, changes to the resource, and resulting new management choices does not make for a great legal precedent.

The same features make day-to-day fishery management a bad candidate for the legislative process, which can take even longer than the judiciary.³¹ Most legislators are not in a strong position to

30. 16 U.S.C. § 1851(a)(1) (as amended; effective Jan. 12, 2007). Of note, interpretation of words like “overfishing” drive the outcome of most FCMA litigation, but the *Chevron* doctrine of administrative law (directing courts to defer to reasonable agency interpretations) poses an important disincentive for would-be judicial challenges to fishery management choices. See JOSH EAGLE, SARAH NEWKIRK & BARTON H. THOMPSON JR., *TAKING STOCK OF THE REGIONAL FISHERY MANAGEMENT COUNCILS* (Pew Charitable Trusts, 2003) (noting that judicial deference is a major deterrent to litigation, because courts are reluctant to overturn agency decisions of a technical nature, such as the suitable definition of “overfished”).

31. *But see* Eagle, Sanchirico & Thompson, *Ocean Zoning*, *supra* note 4 (proposing congressional fisheries management by legislative ocean zoning, following a land use planning model, in which regional councils set the MSY for more limited areas while other

evaluate the sophisticated scientific and economic data that inform fishery management decisions at the front end, and they usually lack the necessary time or resources to manage the ongoing data inputs and stakeholder correspondence required for fishery management decisions going forward. By sheer economy of scale, legislatures are outmatched by the continuous and intricate demands of good fisheries management.³²

In contrast, administrative agencies can be designed and staffed to accommodate scientific complexity and ongoing stakeholder input. Administrative collaboration with stakeholders is important, not only as good agents of accountable governance, but because stakeholders have access to much of the critical landings data that fisheries management needs to work well.

Moreover, agency process can facilitate the kinds of cross-jurisdictional decision-making that fisheries management demands, because water resources, and the marine life within them, are notoriously bad at respecting arbitrary political boundaries.³³ The complexities of fisheries management often exceed the jurisdiction of a single state, let alone a single national entity.³⁴

Executive agencies are also well-positioned to coordinate across the vertical separation of powers, facilitating the kinds of interjurisdictional management efforts that are often necessary within our federal system of government. Too many spill-over impacts often prevent resource management on a purely local level, but too many local factors go into setting the MSY—from local ecosystem factors to local market dynamics—for uniform decision-making at the national level.³⁵ And while Congress's ability to negotiate with state agencies in pursuit of federal policies is constitutionally constrained,³⁶ federal agencies have a wider array of tools and

ocean zones are designated for other management strategies, such as recreation and conservation).

32. Of interest, the California legislature performed the task of setting fishing quotas through the 1950s, but legislative management responsibility was eventually ceded to the administrative state there as well. *See generally* ARTHUR MCEVOY, *THE FISHERMAN'S PROBLEM: ECOLOGY AND THE LAW IN CALIFORNIA, 1850-1980* (1990).

33. ERIN RYAN, *FEDERALISM AND THE TUG OF WAR WITHIN*, 151–53 (2012) [hereinafter RYAN, *TUG OF WAR WITHIN*] (discussing the jurisdictional challenge of managing water resources).

34. The international dimensions of this problem are addressed by the U.N. Convention on the Law of the Sea, Part V (detailing the rights of nations to fish within designated Exclusive Economic Zones) and Part VII (setting rights to fish in the High Seas).

35. *Cf.* RYAN, *TUG OF WAR WITHIN*, *supra* note 33 (discussing the general challenges of regulating within the inter-jurisdictional gray area).

36. *See* Erin Ryan, *The Spending Power and Environmental Law After Sebelius*, 85 *COLO. L. REV.* 1003 (2014) [hereinafter Ryan, *Spending Power*] (discussing spending power bargaining as Congress's primary means of negotiating with states for access to policymaking influence beyond enumerated federal powers); *see also* Erin Ryan, *Environmental Federal-*

methods for conducting interagency negotiations and cross-jurisdictional collaboration in pursuit of shared sustainability objectives.³⁷

For these reasons, fisheries management provides a classic example of the highly technical brand of policy implementation that lawmakers delegate, within broad policy outlines (and usually with great relief), to the care of the experts in the appropriate agency. Accordingly, Congress has delegated fisheries management to the executive branch through the FCMA, which provides broad guidance for agency decision-making while preserving generous space for executive improvisation in the pursuit of sustainable fisheries.³⁸

III. WHY ARE FISHERY MANAGEMENT PLANS THE MOST FREQUENT TARGETS OF SUIT?

Congress thus sets overarching goals and basic procedures for fishery management in the FCMA, but the Act gives wide latitude to administrative agencies to craft management plans that will protect individual fisheries, and to cope with the ongoing decisions and stake-holder engagement required to keep these fisheries healthy. The statute divides U.S. waters into eight regional fisheries and requires the development of an individual Fishery Management Plan (FMP) for each one.³⁹ It entrusts design of the FMPs and annual specifications to eight regional Fishery Management Councils, statutorily required to include representatives from all sectors of the fishing industry, various state and federal agencies with interests in fisheries, and other state-appointed officials with expertise in fishery resources and fishing communities.⁴⁰

Which leads us to the second part of our inquiry: when fishery management does end up in court, why are these carefully-crafted, locally-driven, stakeholder-informed management plans the most frequent target of suit? It is a legitimate question, because most of the stakeholders that litigate them are, by statutory design, part of the drafting process. One might assume that the final output would

ism's Tug of War Within, in THE LAW AND POLICY OF ENVIRONMENTAL FEDERALISM: A COMPARATIVE ANALYSIS (Kalyani Robbins, ed., 2015) [hereinafter Ryan, *Environmental Federalism*] (discussing the different mechanisms of cooperative environmental federalism).

37. Erin Ryan, *Negotiating Federalism*, 52 B.C. L. REV 1, 102–35 (2011) [hereinafter Ryan, *Negotiating Federalism*] (discussing the advantages of executive process in the negotiation of cross-jurisdictional policy-making and implementation).

38. FCMA § 301, 16 U.S.C. § 1851 (2012). As described below in Part III, the FCMA requires the agency to appoint regional councils to assist them in decision making, and these councils are composed of many members who are not employees of the executive branch agency. *Id.* § 302(b), 16 U.S.C. § 1852(b). In this regard, the FCMA process departs from the usual model of executive branch administration. However, agency officials participate on the regional councils and must approve their proposals to give them the force of law.

39. *Id.* § 302(a), 16 U.S.C. § 1852(a).

40. *Id.* § 302(b), 16 U.S.C. § 1852(b).

reflect their interests—and at least ideally, those interests should align well with the goals of the FCMA, because the interests of fishers, fishing communities, and conservationists are all served by a sustainable fishery, and all are undermined by fishery collapse.

Tragic examples of fishery collapse put pressure on this assumption, and stakeholder policy positions often diverge.⁴¹ But if everyone shares the same ultimate goal, why do FMPs end up in court?⁴² And if FMPs consistently provoke legal challenge, does this signify a failure in the underlying statute? Does it signify a failure of administrative fisheries governance?

A. The FCMA National Standards

To understand why fishery management plans become the most frequent subject of litigation, we must consider the role they play within the overall statutory system, beginning with underlying policy guidance in the statute. As noted, Congress delegates the day-to-day management of fishery resources to the regional councils through the FCMA, which sets forth the structures and procedures for agency decision-making while allowing generous latitude to agency discretion in making these decisions. The statute essentially commits the details of the management plans to agency discretion,⁴³ but it does require that all plans advance a series of overarching policy goals, set forth as the ten “National [S]tandards.”⁴⁴

As Craig and Danley’s article describes, seven of these were introduced in the original statute in 1976, and then the 1996 Sustainable Fisheries Act amendments added three more, designed to address growing concerns about ongoing overfishing in spite of the original FCMA’s constraints.⁴⁵ Each standard states a discrete policy goal for fisheries management, and all management plans must be consistent with each of them. At first blush, this would not seem to pose a problem, because each of the National Standards sets forth an eminently reasonable, seemingly uncontroversial goal:

(1) Conservation and management measures shall prevent overfishing while achieving, on a continuing basis, the

41. Donna R. Christie, *Living Marine Resources Management: A Proposal for Integration of United States Management Regimes*, 34 ENVTL. L. 107, 153 (2004) (noting that while these interests should align, fishers’ choices to avoid short-term economic pain often prevails over long-term choices that would sustain fishery over time).

42. For an interesting take on why stakeholders are always and inevitably unhappy with fisheries management, see Eagle & Kuker, *Public Fisheries*, *supra* note 4.

43. FCMA § 301, 16 U.S.C. § 1851 (2012).

44. *Id.* (requiring that all FMPs be consistent with these conservation and management measures).

45. Craig & Danley, *supra* note 1, at 381.

optimum yield from each fishery for the United States fishing industry.

(2) Conservation and management measures shall be based upon the best scientific information available.

(3) To the extent practicable, an individual stock of fish shall be managed as a unit throughout its range, and interrelated stocks of fish shall be managed as a unit or in close coordination.

(4) Conservation and management measures shall not discriminate between residents of different States. If it becomes necessary to allocate or assign fishing privileges among various United States fishermen, such allocation shall be (A) fair and equitable to all such fishermen; (B) reasonably calculated to promote conservation; and (C) carried out in such manner that no particular individual, corporation, or other entity acquires an excessive share of such privileges.

(5) Conservation and management measures shall, where practicable, consider efficiency in the utilization of fishery resources; except that no such measure shall have economic allocation as its sole purpose.

(6) Conservation and management measures shall take into account and allow for variations among, and contingencies in, fisheries, fishery resources, and catches.

(7) Conservation and management measures shall, where practicable, minimize costs and avoid unnecessary duplication.

(8) Conservation and management measures shall, consistent with the conservation requirements of this chapter (including the prevention of overfishing and rebuilding of overfished stocks), take into account the importance of fishery resources to fishing communities by utilizing economic and social data that meet the requirements of paragraph (2), in order to (A) provide for the sustained participation of such communities, and (B) to the extent practicable, minimize adverse economic impacts on such communities.

(9) Conservation and management measures shall, to the extent practicable, (A) minimize bycatch and (B) to the extent bycatch cannot be avoided, minimize the mortality of such bycatch.

(10) Conservation and management measures shall, to the extent practicable, promote the safety of human life at sea.⁴⁶

46. 16 U.S.C. § 1851(a)(1)–(10) (as amended; effective Jan. 12, 2007).

The 1996 amendments further required that FMPs rebuild overfished stocks, identify essential fish habitat, minimize the adverse effects on fish habitat by the fishing activity, and otherwise encourage habitat conservation.⁴⁷ For the first time, they required that FMPs specify objective and measurable criteria for identifying fisheries approaching “overfished” status and standardized reporting methodology for assessing bycatch and conservation measures.⁴⁸ Any harvest restrictions were required to be allocated equitably among all sectors of the fishing industry.⁴⁹ Finally, the Secretary of the Department of Commerce was required to keep track of whether fish stocks are overfished, and to assume control over management decisions from any of the regional councils if the council did not address the problem within specified time limits.⁵⁰

Grossly oversimplified, then, FMPs should do the following things: first and foremost, they should prevent overfishing. Also, they should be based on good scientific information. They should manage stocks as a unit, allocate fishing privileges fairly, and consider efficiency. They should take account of variations, seek to minimize costs, and minimize adverse economic impacts wherever possible. They should also minimize bycatch, and they should promote the safety of life at sea. They should protect fish habitat and distribute the economic benefits and burdens of management choices equitably among the fishing industry. A management plan that honors each concern should pass statutory muster, and one that does not will fall short.

To be sure, each of these goals, on its own, seems like an excellent idea—but as with most multifactor mandates, honoring them all simultaneously can create challenges in execution, due to some unavoidably mixed messages among them.⁵¹ For example, consider the potential conflicts between National Standard 1, which requires managers to prevent overfishing while achieving the optimum yield,⁵² and National Standard 8, which requires them to avoid causing economic harm to fishing communities.⁵³ In the long term, of course, there should be no conflict, because fishing communities will not do well economically after the local fishery collapses.

47. Sustainable Fisheries Act, Pub. L. 104-297, at §§ 106(b), 108(a)(1), 108(a)(3), 110 Stat. 3559 (1996) (codified at 16 U.S.C. §§ 1803, 1861, 1881–1883, 5107a, 5107b (2012)).

48. *Id.* § 108(a)(7).

49. *Id.*

50. *Id.* § 109(e).

51. See Josh Eagle, *Domestic Fishery Management*, in *OCEAN & COASTAL LAW DESK BOOK* (Don Baur et al. eds. 2008) (“While the language of particular provisions is clear, the statute as a whole delivers a mixed message.”)

52. 16 U.S.C. § 1851(a)(1) (2012).

53. *Id.* § 1851(a)(8).

However, in the short run, limiting catch in the moment to protect fish stocks in the future can create deep tension among stakeholders—tension that can provoke litigation—especially among fishers facing a mortgage deadline next month.

In fact, FMPs have been challenged on this very point, as advocates on each side of the issue claim that the standards support their own preferred balancing point.⁵⁴ The Sustainable Fisheries Amendments of 1996⁵⁵ strongly suggest that the conservation mandate at the heart of National Standard 1 should not be overcome by other factors, and the courts have generally followed this lead—but managers, litigants, and judges continue to struggle with the proper balance between them.⁵⁶

The important point here is that Congress did not really answer these questions. Congress accurately identified some important policy trade-offs that would eventually have to be made, but it stopped short of doing so in the statute. Instead, Congress punted the issue to the regional councils. Through the FCMA, Congress has essentially handed over the big, unresolved policy questions about

54. Compare *N.C. Fisheries Ass'n v. Daley*, 16 F. Supp. 2d 647, 654 (E.D. Va. 1997) (rejecting a management plan for failing to give due credence to the goals of National Standard 8) with *Lovgren v. Locke*, 701 F.3d 5, 35 (1st Cir. 2012) (“The plain language of [National Standard] 8 and its advisory guidelines make clear that these obligations are subordinate to the MSA’s overarching conservation goals.”); see also *N.C. Fisheries Ass’n v. Daley*, 27 F Supp. 2d 650, 662 (E.D. Va. 1998) (finding that the agency had “abdicated [its] responsibilities” with regard to National Standard 8 in service of competing conservation interests); *S. Offshore Fishing Assn. v. Daley*, 995 F. Supp. 2d 1411 (M.D. Fla. 1998) (holding that the agency’s inadequate economic impact analysis violated National Standard 8); but see *Nat. Res. Def. Council, Inc. v. Daley*, 209 F.3d 747, 753 (D.C. Cir. 2000) (holding that conservation interests must prevail over economic interests).

55. Sustainable Fisheries Act, Pub. L. 104-297, 110 Stat. 3559 (1996) (codified at 16 U.S.C. §§ 1803, 1861, 1881–1883, 5107a, 5107b (2012)).

56. Compare the decision of the district court in *Nat. Res. Def. Council, Inc. v. Daley*, 62 F. Supp. 2d 102 (D.D.C. 1999) (upholding the agency’s decision to prioritize the economic interests protected by National Standard 8 over the conservation interests protected by National Standard 1) with the Circuit Court’s decision overturning it, *NRDC v. Daley*, 209 F.3d 747 (D.C. Cir. 2000). In the latter decision, the court emphasized that conservation trumps:

[W]e reject the District Court’s suggestion that there is a conflict between the Fishery Act’s expressed commitments to conservation and to mitigating adverse economic impacts. . . . The Government concedes, and we agree, that, under the Fishery Act, the Service must give priority to conservation measures. It is only when two different plans achieve similar conservation measures that the Service takes into consideration adverse economic consequences. This is confirmed both by the statute’s plain language and the regulations issued pursuant to the statute. See [16 U.S.C. § 1851(a)(8) (1994)] (requiring fishery management plans, “consistent with the conservation requirements of this chapter,” to take into account the effect of management plans on fishing communities) (emphasis added); 50 C.F.R. § 600.345(b)(1) (1999) (“[W]here two alternatives achieve similar conservation goals, the alternative that . . . minimizes the adverse impacts on [fishing] communities would be the preferred alternative.”) (emphasis added).

how to balance the conflicting goals of fisheries management to administrative oversight, by incorporating a long list of idealistic management goals with patently unresolved conflicts among them. By giving the agency a long list of important but incommensurable targets, Congress asks the Executive to become responsible for the core policy choices involved in sorting them out in each instance⁵⁷—not unlike many other legislative delegations to the administrative state.

B. Fishery Management Plans as Litigation Bait?

Which brings us back to our second inquiry: why are fishery management plans so frequently the target of FCMA litigation? And the answer, perhaps unsurprisingly, is exactly this reason: it is because Congress has punted the big, unresolved policy questions for administrative resolution in each individual management plan.

We have already discussed the tension between avoiding environmental and economic harm raised by National Standards 1 and 8, but the list reveals other conflicts as well. National Standard 7 requires that management plans minimize costs,⁵⁸ but National Standard 9 requires plans to also minimize bycatch.⁵⁹ Like National Standards 1 and 8, these are both laudable goals independently, but they can point in opposite directions, as confirmed by subsequent litigation.⁶⁰ Indeed, the problem was even recognized by the House Committee on Natural Resources when it proposed the Sustainable Fisheries Act amendments, introducing new National Standard 9 with oblique reference to the inevitable conflicts it would trigger with other management goals. Acknowledging that it would be difficult to fully eliminate bycatch in a commercially viable fishery, the Committee explained that:

The issue of bycatch reduction and the reduction of discard mortality have been identified by the Committee as one of the most important challenges facing fisheries managers today. There has been a dramatic reduction in population levels of stocks of fish worldwide. One identifiable cause in the U.S. fisheries has been bycatch and the needless waste

57. Because the regional councils are predominantly composed of industry participants, some argue that Congress didn't even truly punt the values conflict to the agency—it handed the conflict directly to the industry. *See, e.g.,* EAGLE, NEWKIRK & THOMPSON, *supra* note 30.

58. 16 U.S.C. § 1851(7) (2012).

59. *Id.* § 1851(9).

60. *See, e.g.,* Nat. Res. Def. Council, Inc. v. Daley, 209 F.3d 747 (D.C. Cir. 2000); Oceana, Inc. v. Evans, 384 F. Supp. 2d 203 (D.D.C. 2005).

of commercially harvestable fish and the disposal of juvenile and other fish.

The Committee intends that reduction of bycatch should be a goal of all Fishery Management Plans. It is unlikely, however, that any fishery—recreational or commercial—can occur without some bycatch being taken. The amendment contained in this section thus requires that bycatch be minimized to the maximum extent practicable, not eliminated. While the Committee recognizes that it will be very difficult to eliminate all bycatch, it is clear that Councils and fishermen should continually look for innovative ways to make significant reductions in bycatch and in the mortality of discards.⁶¹

Yet the issue goes beyond conflicts between conservation and economic interests; questions about how to balance interests arise even from within the extraction community—allocating catch among commercial, recreational, and subsistence fishers.⁶²

Like many legal rules that create balancing tests, the National Standards are like a big delicious salad bowl of conflicting values. In the analogous context of property law, they are like the three factors of the regulatory takings balancing test, which have been critiqued as unmanageable because they represent incommensurate factors that can point in completely different directions.⁶³ They are like the five good governance values underlying constitutional federalism, which I have described in previous work.⁶⁴ Except here, the problem is compounded because there are ten separate factors, setting the stage for even more potential conflicts!

Of course, the ten National Standards are not all in conflict, and many can be incorporated harmoniously much of the time. But there is the potential for conflict, and because a stakeholder can always argue that one standard is getting short shrift, these potential conflicts become fodder for potential litigation. Even so, it is very hard to prove which one should take priority as a matter of law—which

61. H.R. REP. NO. 104-171 at 27 (1995).

62. See Ray Hilborn, *Defining Success in Fisheries and Conflicts in Objectives*, 31 MARINE POL'Y 153 (2007) (discussing fairness and equity in issuing catch limit rules); see also Van Valin v. Locke, 671 F. Supp.2d 1 (D.D.C. 2009).

63. For an overview of the “veritable cottage industry [that] has developed among scholars and commentators, who regularly attempt to invest the decision’s gauzy rhetoric with meaning[,]” see R.S. Radford & Luke A. Wake, *Deciphering and Extrapolating: Searching for Sense in Penn Central*, 38 ECOL. L.Q. 731, 732 (2011).

64. See RYAN, TUG OF WAR WITHIN, *supra* note 33, at 34–67 (2012) (discussing checks and balances, transparency and accountability, localism values, and the problem-solving value implied by subsidiarity); Ryan, *Environmental Federalism*, *supra* note 36, at 362–64 (adding explicit consideration of how centralized power counterbalances localism values).

means that it is also very hard to win this kind of litigation.⁶⁵ Craig and Danley's work confirms this point, showing that the agency prevails against challenges from the conservation and industry sides well over half the time, and as much as 75 percent of the time when the suit is brought by the fishing community.⁶⁶

IV. WHY DOES INDUSTRY BRING LITIGATION MORE OFTEN THAN ENVIRONMENTALISTS?

This last observation leads naturally to our third and final question: if they lose almost 75 percent of the time, why is it that members of the fishing industry sue more often than conservation interests? This is actually a surprising point, as one might reasonably expect the opposite. After all, the FCMA has often been criticized by those observing that conservation interests are the only stakeholders in the fisheries context that do not get a guaranteed vote on the regional fishery management councils.⁶⁷ Why would fishers sue more often than conservationists, when they are guaranteed voting representation in the process of fishery management planning, and conservationists are not?

Indeed, the regional councils are primarily composed of fishing interests. The statute mandates that each council include the principal state official with responsibility for marine fisheries management responsibility of each regional state, and the regional director of the National Marine Fisheries Service for the relevant geographic area, but it leaves the rest of membership appointment decisions to the agency, in consultation with the relevant state governors.⁶⁸ And while the statute explicitly requires balance on the councils between commercial and recreational fishing interests,

65. Craig & Danley, *supra* note 1, at 411.

66. *Id.*

67. 16 U.S.C. § 1852(a)–(c) (2012) (setting out requirements of members, appointed by U.S. Secretary of Commerce, of Regional Fishery Management Councils under FCMA and distinguishing between voting and nonvoting members thereof). For an example of criticism thereof, see Thomas E. Okey, *Membership of the Eight Regional Fishery Management Councils in the United States: Are Special Interests Over-Represented?*, 27 *MARINE POL'Y* 193 (2003). For a survey of litigation over catch shares, see Suzanne Iudicello & Sherry Bosse Lueders, *A Survey of Litigation over Catch Shares and Groundfish Management in the Pacific Coast and Northeast Multispecies Fisheries*, 46 *ENVTL. L.* 157 (2016).

68. 16 U.S.C. § 1852(a)–(c) (2012).

there is no equivalent balance mandated balance between extraction and conservation interests.⁶⁹ The U.S. Fish and Wildlife Service gets a member on each council, but only in a non-voting capacity.⁷⁰

This means that conservation interests are not guaranteed the same access to management decision-making that fishing industry members get—so you might reasonably assume that they would be more likely to end up unhappy with the results of that process, and to sue when they find themselves unhappy. Yet according to Craig and Danley's data, that has not been happening.⁷¹ Why so?

While I can only speculate here, the answer may be surprisingly straightforward. Public choice theory, an economic model of political behavior, might account for the unexpectedly low ratio of environmentalist to fisher lawsuits. In fact, fishery governance and litigation may provide a classic example of the dynamics predicted by public choice theory.⁷²

A. Public Choice Theory and Fishing Litigation.

Public choice theory predicts that stakeholders with concentrated interests in a certain result will invest more in obtaining that result than will the diffuse members of a larger group who would prefer otherwise. Even though the aggregate interests of the larger group may outweigh that of the concentrated stakeholders, the members of the larger group experience their interests only as disaggregated individuals, none of whom cares enough on their own to out-lobby the concentrated interest group.⁷³ As a result, the public choice model predicts that concentrated “special interests,” or

69. The statute details:

The Secretary, in making appointments under this section, shall, to the extent practicable, ensure a fair and balanced apportionment, on a rotating or other basis, of the active participants (or their representatives) in the commercial and recreational fisheries under the jurisdiction of the Council. On January 31, 1991, and each year thereafter, the Secretary shall submit to the Committee on Commerce, Science, and Transportation of the Senate and the Committee on Merchant Marine and Fisheries of the House of Representatives a report on the actions taken by the Secretary to ensure that such fair and balanced apportionment is achieved.

Id. § 1852(b)(2)(B)

70. *Id.* § 1852(C)(1)(a).

71. Craig & Danley, *supra* note 1, at 411–18.

72. See generally Richard L. Revesz, *Federalism and Environmental Regulation: A Public Choice Analysis*, 115 HARV. L. REV. 553 (2001). For discussions of public choice theory in the context of environmental policy, see William W. Buzbee, *Clean Air Act Dynamism and Disappointments: Lessons for Climate Change Legislation to Prompt Innovation and Discourage Inertia*, 32 WASH U. J.L. & POL'Y 33 (2010); see also William W. Buzbee, *Interactions' Promise: Preemption Policy Shifts, Risk Regulation, and Experimentalism Lessons*, 57 EMORY L.J. 145 (2007).

73. *Id.*

single-issue voters, will always outmaneuver the general public in the political process that will determine the ultimate policy outcome.⁷⁴

In the fisheries context, fishers are likely to be single-issue stakeholders. As a group, their interests coalesce around one primary goal: staying in business on their local fisheries, and being able to continue fishing for the single or select group of fish that creates their livelihood. There may be equivalent single-issue conservation groups that also care only about one or two species of fish in an individual fishery, but most non-governmental organizations with an interest in fisheries management have a wider repertoire of concerns, over a broader geographic area, and perhaps including other wildlife—or other ocean or waterway issues, or even wider environmental issues that have nothing to do with fisheries or waterways.⁷⁵ On balance, they are probably less likely to invest in fighting an individual FMP than a fisher whose entire livelihood hinges on the rules in that management plan.

Moreover, as noted in Part III, suing over the content of FMPs is a highly uncertain endeavor, because the National Standards confer so much agency discretion that reviewing courts are hard-pressed to find fault with the substantive content of all but the most egregious management decisions.⁷⁶ Yet it is this very same fact may reveal why fishers are still going to court, and by and large, conservationists are not.

All else being equal, single-issue actors may be more likely to sue under conditions of deep uncertainty about the result of their litigation, because they have everything to gain from litigating a management decision they do not like, and everything to lose if they do not. With everything at stake, they are more likely to leave it all on the field in their effort to undo an undesirable FMP. By contrast, conservationists with more varied agendas may think hard about whether they have a chance of winning before they invest scarce resources in litigating a FMP. If you have scarce resources and

74. *Id.*

75. For example, the Sea Turtle Conservancy, headquartered in Florida, is devoted to the conservation of sea turtles. *See About the Sea Turtle Conservancy*, SEA TURTLE CONSERVANCY, <https://conserveturtles.org/sea-turtle-conservancy/> (last visited Apr. 2, 2017). However, the organization focuses on sea turtle preservation in the Atlantic, Pacific, and Caribbean oceans and addresses various threats to turtles, ranging from fishing impacts to habitat loss and beach-front lighting. *Id.* These factors diffuse the interests of the Sea Turtle Conservancy in any one fishery management plan decision, at least relative to the interests of the local fishers who will be singularly and directly affected by that decision.

76. *See supra* note 69 and accompanying text. *But see* Nat. Res. Def. Council, Inc. v. Daley, 209 F.3d 747, 753 (D.C. Cir. 2000) (rejecting the agency's promulgation of a FMP on *Chevron* Step 2, for unreasonably interpreting the ambiguity Congress left it in failing to provide for significant conservation measures in a summer flounder fishing quota).

multiple objectives, you're going to think very carefully about whether it's even worth getting into such an uncertain game.⁷⁷

Notably, this hypothesis draws some support from Craig and Danley's data, which suggest that even though environmentalist sue less often, they win a bit more when they do litigate.⁷⁸ It may be that environmentalists make more careful decisions about when to sue, investing scarce resources only in those lawsuits they believe they can win. Further support is provided by Craig and Danley's findings that litigation by conservationists increased after the enactment of the 1996 Sustainable Fisheries Act.⁷⁹ The 1996 Sustainable Fisheries Act amendments put a heavier thumb on the scale towards conservation priorities within the conflicting National Standards, giving conservationists a reason to think that they could sue more successfully—and they did.

V. CONCLUSION: FISHERIES AND OUR DYNAMIC SEPARATION OF POWERS

While these comments yield no groundbreaking conclusions, I offer some closing thoughts, generally affirming the administrative structure of fisheries governance, flawed though it remains, as the best of the available alternatives—at least in this Panglossian, best-of-all-possible political contexts.⁸⁰ The FCMA has yet to succeed at its task, as too many U.S. fisheries remain overfished and over-capitalized, with too much bycatch and damage to marine habitats.⁸¹ Scholarly recommendations for improving fisheries management include ambitious proposals for adapting urban planning models to zone the ocean for different uses, reducing the influence of industry-dominated regional councils and diffusing decision-making authority through a variety of different agency actors, with differing degrees of legislative constraints.⁸² These proposals

77. Comparatively scarce resources limit the likelihood that conservationists will bring litigation for additional reasons. As one former conservation lobbyist explains, "In order to develop the understanding of issues in a particular fishery, you must send a person to most council meetings, go to panel and subcommittee meetings (which are spread around the entire council region), read all of the stock assessments in consultation with a fisheries scientist, etc. I was paid to do this for Audubon, and I could only monitor one or two fisheries. While [conservationists] probably monitor most major fisheries this way today, the industry monitors every single one." Josh Eagle, email correspondence of April 21, 2017 (on file with author).

78. Craig & Danley, *supra* note 1, at 415–18.

79. *Id.*

80. VOLTAIRE, *CANDIDE* (1759) (in which Professor Pangloss concludes that because ours is the only possible world, thus it must be "the best of all possible worlds," no matter how deeply flawed it may be).

81. See, e.g., Eagle, Sanchirico & Thompson, *Ocean Zoning*, *supra* note 4, at 648–49.

82. *Id.*

warrant our consideration as we continue to improve our stewardship of fishery resources and the ecosystems of which they are part. Nevertheless, even under the existing FCMA model, steady improvements in fisheries management over time demonstrates the vitality of our horizontal and vertical separation of powers—even in a context as heavily administrative as this one.

For the purposes that the FCMA sets out to achieve, the administrative state outperforms the other branches in most contexts. The FCMA delegates to administrative actors the very tasks we need an administrative state to be able to accomplish—quick responses in an ongoing process of highly technical, data-driven, fluid, consultative, and adaptive decision-making. Fisheries management provides a good example of the complex decisions that must be made on the basis of scientific evidence—but in the face of incommensurable values conflicts whose resolution is not immediately obvious, and may differ from one context to another. These are the kinds of decisions that are best reached through ongoing processes of negotiation among locally diverse stakeholders, and thus suited for administrative process.⁸³

Of course, this process hinges on adequate representation of all stakeholders, and conservationists have long argued that their limited access to the regulatory process has been a fatal flaw for balanced management choices, based on a statutory design flaw in the make-up of the regional councils. Later FCMA amendments have enhanced the voice of conservationists at the table by including new conservation directives among statutory requirements, but without voting roles on the regional councils, their representatives continue to feel excluded from core management decisions.⁸⁴ In a separate account of negotiated governance in the face of incommensurable values conflicts, I highlighted the importance of faithful and adequate representation as one of three key principles needed to confer legitimacy on a consensus-based outcome,⁸⁵ a lesson that could be better heeded in the FCMA context.

As configured under the FCMA, management activity is subject to judicial intervention when litigants challenge the agency's resolution of core policy conflicts that have been deferred to it by the legislature. Accordingly, we see proportionately more litigation about the content of the fishery management plans than any

83. See generally Ryan, *Negotiating Federalism*, *supra* note 37.

84. Josh Eagle, email correspondence of April 21, 2017 (on file with author) (“Environmental groups attend council meetings, but the only reason councils ever listen to them is because they are afraid of being sued. I went to dozens of council meetings as an environmental lobbyist and I can say with absolute certainty that I was never part of the drafting process.”)

85. See RYAN, *TUG OF WAR WITHIN*, *supra* note 33, at 342–47; Ryan, *Negotiating Federalism*, *supra* note 37, at 108–09.

other feature—and most often brought by members of the fishing industry, the single-issue stakeholders who are motivated to sue whenever their interests are threatened by agency choices. Yet the deference the statute confers on the process also means that most litigation is unsuccessful, because the courts defer to reasonable agency decision-making under the ordinary principles of administrative law.⁸⁶ When the values conflict commands no nationally uniform consensus, and the agency has come to a legitimate conclusion on the basis of a diligent consultative process with all relevant stakeholders, then the court appropriately defers because the administrative process itself becomes the best and perhaps only means of prioritizing incommensurable values in individual contexts.⁸⁷ (Once again, however, a legitimate conclusion can only be negotiated among all relevant stakeholders.⁸⁸)

Even so, Congress should never give a blank-check for executive hegemony, and when FMPs were failing the primary goal of fishery management—to sustainably shepherd the resource—Congress appropriately amended the statute, disrupting the status quo of administrative fisheries management. In the 1996 Sustainable Fisheries Act amendments, Congress added new National Standards that, on balance, redirected agency decision-making toward conservationist goals. The amendments also provided a new hook for judicial review, presenting the courts with crisp new statutory mandates for interpretation and altering the public choice factors that had previously induced litigation primarily to expand fishing rights.

The new standards encouraged conservation interests to invoke judicial oversight more often, with more reason to believe that their litigation would succeed. By articulating new standards that empowered conservation-side litigation, Congress may even have created the opportunity for public participation by the statutorily disfavored conservation stakeholders. The increased threat of litigation from conservationists likely induced regional management councils to better heed their concerns in FMP design, even though the statute does not guarantee them a vote.⁸⁹ The Magnuson-Stevens Reauthorization Act of 2006 further bolstered conservation interests, amending the Act to direct that the United States advance international fisheries management efforts toward greater marine

86. *Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837 (1984).

87. *C.f.* RYAN, TUG OF WAR WITHIN, *supra* note 33, at 347–56; Ryan, *Negotiating Federalism*, *supra* note 37, at 110–120 (discussing the significance of procedural constraints when substantive constraints are unable to resolve incommensurable values conflicts).

88. *Id.* (discussing the importance of stakeholder representation).

89. *See supra* note 84.

resource protection.⁹⁰ And so the dialectic of inter-branch power dynamics continues apace in fisheries management.

Indeed, the history of the FCMA and its amendments shows that the balance of horizontal power in our constitutional system is never fixed, even in a regulatory context as heavily administrative as fisheries management. Congress can always intervene to constrain agency discretion, and to empower judicial oversight against agency expertise, by providing more clearly defined statutory guidance. This is precisely what Congress did when it enacted the 1996 and 2006 amendments—constituting additional iterations in the familiar pattern of engagement among branches of government, alternating between moments in which they compete for power and others in which they yield.

In this way, the FCMA, the Sustainable Fisheries Act, the Reauthorization Act, and their impacts on fishing litigation showcase the effective deployment of our constitutional structure to horizontally reallocate management authority across the three branches in response to a new policy consensus—here, the need for stricter fishery conservation. These successive moments in regulatory history highlight the possibility for ongoing renegotiation of regulatory authority among the branches of government, and it demonstrates that entrusting fisheries to the administrative state—or indeed, entrusting it with any substantive realm of governance—is never the end of the line. Even fishery governance retains the vitality characteristic of our dynamic system of horizontally and vertically separated powers.⁹¹

As crazy as that system can look from the outside, I conclude with the overall assessment that the balance of legislative, judicial, and administrative power in fisheries management is (at least roughly) as it should be. Congress could certainly improve the FCMA—at a minimum, correcting the balance of representation on the regional councils, or perhaps even diffusing council authority with other forms of agency oversight in differently purposed marine areas⁹²—but as a model for fishery management, it rightly sets forth overarching policy goals and confers agency discretion to realize them in individual contexts. Most day-to-day decisions are not suited for the interpretive distinctions that courts draw, or the broadly sweeping rules that legislators can provide. Only the agencies possess the necessary governing capacity—the time,

90. Magnuson-Stevens Fishery Conservation and Management Reauthorization Act of 2006, Pub. L. 109-479, 120 Stat. 3575 (2007).

91. Erin Ryan, *Negotiating Federalism and the Structural Constitution: Navigating the Separation of Powers both Vertically and Horizontally (A Response to Aziz Huq)*, 115 COLUM. L. R. SIDEBAR 4 (2015).

92. See Eagle, Sanchirico & Thompson, *Ocean Zoning*, *supra* note 4.

expertise, and regulatory flexibility—to work out the details of fishery management on a day to day basis.

Fisheries management thus reveals the importance of the administrative state, working together with its co-equal branches, in moving us toward meaningful regulatory solutions. It is not exactly environmental law without courts, nor should it be—but a healthy dialectic should allow executive branch decision-making to lead in contexts where the best governance is negotiated among scientists, stakeholders, and citizens through the administrative process. So long as all stakeholders, including the public, are adequately represented, and so long as Congress and the courts remain a meaningful check against egregious choices, procedural abuses, and evolving policy consensus, then much of the governance capacity required by the task is best provided by the administrative state.

THE MILITARY-ENVIRONMENTAL COMPLEX AND THE COURTS

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I. INTRODUCTION

I am delighted to have been invited to contribute to this Symposium on the important topic of *Environmental Law Without Courts*. In this essay, I discuss a form of environmental governance—what I have called the *military-environmental complex*¹—that holds the potential to transform for the better our nation’s energy profile both by reducing fossil fuel use and stimulating the development and diffusion of climate-positive technology and values.

The military-environmental complex is the Department of Defense’s (DoD) active pursuit, at times with Congress, the President, and the private sector, of ways “to improve its sustainable

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1. Sarah E. Light, *The Military-Environmental Complex*, 55 B.C. L. REV. 879 (2014) [hereinafter Light, *The Military-Environmental Complex*]; Sarah E. Light, *Valuing National Security: Climate Change, the Military, and Society*, 61 UCLA L. REV. 1772, 1778 (2014) [hereinafter Light, *Valuing National Security*] (proposing the hypothesis that the military-environmental complex may have important spillovers in the realm of values, and that framing climate change as a national security concern may affect the “attitudes of individuals who, because of their existing values or political ideologies, would not otherwise” support climate policy).

energy use and reduce demand for fossil-fuel-derived energy—both in military operations and in military installations.”² Despite its alignment with these important and timely environmental goals, the military-environmental complex is not motivated by concern for the environment. Rather, its driving force is the national security interest of the United States.³ Reducing fossil fuel use in military operations, for example, can save soldiers’ lives by decreasing the number of fuel convoys that are vulnerable to attack.⁴ Finding alternative sources of electricity to power DoD’s military installations can protect those installations and their critical missions from attacks on the conventional electric power grid.⁵ Mitigating climate risks can reduce the potential that the U.S. military will be called upon to address climate-related threats abroad, including the problems of climate refugees, conflicts fueled by climate-related weather disasters such as droughts, or the need to police new areas of the Arctic that are exposed by the loss of sea ice.⁶ As DoD did with technologies originally developed for military use in the twentieth century, such as the Global Positioning System (GPS), the internet, and computers, the military-environmental complex can stimulate the development and diffusion to ordinary consumers of technology that can reduce fossil fuel use and mitigate climate impacts.⁷ Repeated and sustained interactions among these public and private institutions can likewise lead to the exchange of ideas, best practices, and technologies.⁸

Why is this important? Arguably, DoD support for climate policy and action may have just become more important with the recent change in administration. The new Trump Administration has begun the process of reviewing and attempting to roll back a number of environmental regulations, including the Clean Power

2. Light, *The Military-Environmental Complex*, *supra* note 1, at 884–85.

3. *Id.* at 885.

4. *Id.* at 893.

5. *Id.* at 894.

6. *Id.* (citing U.S. DEP’T OF DEF., QUADRENNIAL DEFENSE REVIEW REPORT, at vi (2014), http://www.defense.gov/pubs/2014_Quadrennial_Defense_Review.pdf, *archived at* <http://perma.cc/4JV8-TKER>; U.S. DEP’T OF DEF., QUADRENNIAL DEFENSE REVIEW REPORT, at iii, 84–88 (2010), http://www.defense.gov/qdr/images/QDR_as_of_12Feb10_1000.pdf, *archived at* <http://perma.cc/DLM6-474Z>).

7. *Id.* at 897. While some technologies may be developed for military use and then “spin off” into the private consumer world, in other cases, technologies developed in the civilian world can likewise “spin on” into the military domain. *See id.* at 882 n.13 (citing Jay Stowsky, *From Spin-Off to Spin-On: Redefining the Military’s Role in American Technology Development*, in *THE HIGHEST STAKES: THE ECONOMIC FOUNDATIONS OF THE NEXT SECURITY SYSTEM* 114–40 (Wayne Sandholtz et al. eds., 1992) (describing military reliance on civilian technology as a form of “spin-on”).

8. *Id.* at 896.

Plan.⁹ The Administrator of the U.S. Environmental Protection Agency (EPA) has questioned whether human activity actually plays a role in causing climate change.¹⁰

In sharp contrast, the Secretary of Defense, James Mattis, stated in written testimony to the Senate during his confirmation hearings that the effects of climate change “such as increased maritime access to the Arctic, rising sea levels, desertification, among others—impact our security situation.”¹¹ He stated that climate change requires a “broader, whole-of-government response.”¹² In March, 2017, seventeen Republicans in the House introduced a resolution calling upon Congress to recognize and commit to addressing climate change.¹³ That resolution cites DoD’s 2014 Quadrennial Defense Review, which reiterated DoD’s view that the effects of climate change act as “threat multipliers” and raise national security concerns.¹⁴ It remains to be seen how this view within DoD and among other members of Congress that climate change raises national security concerns may affect broader climate policies within the new administration, including within other agencies, and most importantly, within EPA.¹⁵ And while much of the debate over climate policy is currently playing out within the political branches, it remains to be seen how the courts will respond to the efforts of the new administration to rescind, reverse, or alter the climate policies adopted under the Obama Administration.

This change in administration places into the foreground one of the essential roles that courts play: moderating the policy swings within the political branches. This essay therefore takes up both the descriptive and normative questions of whether there is, or should

9. Executive Order 13,783 on *Promoting Energy Independence and Economic Growth* (Mar. 28, 2017), <https://www.whitehouse.gov/the-press-office/2017/03/28/presidential-executive-order-promoting-energy-independence-and-economy-1> (rescinding the prior administration’s Climate Action Plan, revoking various executive orders, and directing agencies to review environmental regulations with an eye toward rescissions).

10. Chris Mooney & Brady Dennis, *On Climate Change, Scott Pruitt Causes an Uproar—and Contradicts the EPA’s Own Website*, WASH. POST (Mar. 9, 2017), https://www.washingtonpost.com/news/energy-environment/wp/2017/03/09/on-climate-change-scott-pruitt-contradicts-the-epas-own-website/?utm_term=.f082f309af9f (quoting Pruitt as saying “I would not agree that [human activity is] a primary contributor to the global warming that we see”).

11. Sam Mintz, *Pentagon Must Plan for Global Warming—Mattis*, E&E NEWS (Mar. 14, 2017), <https://www.eenews.net/eenewspm/2017/03/14/stories/1060051450>.

12. *Id.*

13. H. R. 195, 115th Cong. 1st sess. (Mar. 13, 2017).

14. *Id.* at 2.

15. Sam Mintz, *Experts Debate Trump Order’s Impact on Security Coordination*, GREENWIRE (Mar. 29, 2017), <https://www.eenews.net/greenwire/2017/03/29/stories/1060052281> (noting that at least some “conservative lawmakers and advocates have questioned whether climate work should be in the purview of defense and security agencies at all”).

be, any role for courts to play in policing the military-environmental complex.

In the context of what we ordinarily think of as “environmental law,” namely, federal environmental statutes like the Clean Air Act,¹⁶ the Clean Water Act,¹⁷ and the National Environmental Policy Act (NEPA),¹⁸ and agency regulations interpreting those federal statutes, courts play a crucial role. The judiciary ensures legitimacy of regulatory action by evaluating whether agency regulations or interpretations are consistent with statutory delegations of authority from Congress.¹⁹ And the judiciary promotes durability and consistency of agency action, as well as respect for the rule of law, by ensuring that agencies cannot repeal existing rules without following proper procedures under the Administrative Procedure Act (APA).²⁰ While this review is deferential, judicial review exists, and courts have rejected efforts by agencies to consider non-statutory factors like the country’s negotiating position on international climate agreements in declining to address greenhouse gas emissions.²¹

In contrast, the judiciary is often asked to defer to the Executive Branch’s conclusion that the national security interest of the United States is at stake. In the past, such deference led to one of the most reviled Supreme Court decisions within the “anti-canon,” *Korematsu v. United States*, in which the Court held that the country’s national security interest trumped even important constitutional values like individual liberty.²² More recently, however, the judiciary has taken a somewhat more limited view, rejecting requests

16. 42 U.S.C. §§ 7401–7671q (2012).

17. 33 U.S.C. §§1251–1388 (2012).

18. 42 U.S.C. §§ 4321–4347 (2012).

19. 5 U.S.C. § 706 (2012) (courts “shall” set aside agency action that is “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law;” or “in excess of statutory jurisdiction, authority, or limitations,” among other bases).

20. *See, e.g.,* Motor Vehicle Manufacturers Ass’n v. State Farm, 463 U.S. 29 (1983) (holding that to repeal a regulation promulgated pursuant to notice-and-comment procedures under the APA, the agency must engage in notice-and-comment rulemaking).

21. *Massachusetts v. EPA*, 127 S.Ct. 1438 (2007).

22. *Korematsu v. United States*, 323 U.S. 214, 218 (1944). The Supreme Court upheld the detention of U.S. citizens of Japanese descent based on the statements of the military that this action was in the national security interest:

The military authorities, charged with the primary responsibility of defending our shores, concluded that curfew provided inadequate protection and ordered exclusion. . . . We cannot say that the war-making branches of the Government did not have ground for believing that in a critical hour such persons could not readily be isolated and separately dealt with, and constituted a menace to the national defense and safety, which demanded that prompt and adequate measures be taken to guard against it.

to defer entirely to the Executive Branch when it invokes national security concerns.²³ And in the more mundane regulatory context, Congress has circumscribed the judiciary's role in reviewing rulemakings that involve "a military or foreign affairs function of the United States" pursuant to the APA.²⁴

In order to understand the role that courts actually play in the military-environmental complex, it is first necessary to unpack more precisely what the military-environmental complex is. Part II of this essay therefore demonstrates that the military-environmental complex comprises many elements, one of which is environmentally preferable procurement rules for goods, services, and energy generation technology.²⁵ Some aspects of green procurement are statutory, leaving courts a more limited role, while others are regulatory, or based in executive orders. To the extent that they are grounded in regulations, the APA exemption for rulemakings involving a "military or foreign affairs function" is less important than the APA exemption for any "matter relating to agency management or personnel or to public property, loans, grants, benefits, or contracts."²⁶

The military-environmental complex goes beyond procurement, however. Part III demonstrates that it also includes military initiatives to stimulate the development of new technologies to meet national security needs, including through the use of competitive prizes for technological innovation. And it includes the iterative

Id. For the argument that the *Korematsu* decision is part of the "anti-canon" of constitutional law, see Richard Primus, *Canon, Anti-Canon, and Judicial Dissent*, 48 DUKE L.J. 243, 276 (1998).

23. For example, the Supreme Court has held that federal courts have jurisdiction to consider habeas petitions from U.S. citizens detained as "enemy combatants," *Hamdi v. Rumsfeld*, 542 U.S. 507, 535 (2004) (rejecting the view that Congressional authorization to hold U.S. citizens as "enemy combatants" deprives these citizens of their due process right to challenge their detentions before a neutral decisionmaker); and that the judiciary likewise has jurisdiction to consider such petitions from foreign citizens held at Guantanamo Bay, *see Rasul v. Bush*, 542 U.S. 466, 483 (2004).

24. 5 U.S.C. §§ 553(a)(1)–(2) (2012). For a discussion of the history and scope of the military function exemption within the APA, *see* Kathryn E. Kovacs, *A History of the Military Authority Exception in the Administrative Procedure Act*, 62 ADMIN. L. REV. 673 (2010); Adrian Vermeule, *Our Schmittian Administrative Law*, 122 HARV. L. REV. 1095, 1112–15 (2009) (noting the lack of clarity on "what counts as a military or foreign affairs function," and that the "committed to agency discretion" exemption is read "quite capaciously in national security contexts"). The APA likewise does not apply to adjudications that involve "the conduct of military or foreign affairs functions," though none of these actions within the military-environmental complex would qualify as an adjudication. 5 U.S.C. § 554(a)(4) (2012).

25. Both in the United States and around the world, governments are adopting environmentally preferable purchasing rules to drive environmental change within supply chains. For a general discussion of "green" procurement rules, *see* Sarah E. Light & Eric W. Orts, *Public and Private Procurement in Environmental Governance*, in POLICY INSTRUMENTS IN ENVIRONMENTAL LAW (Ken Richards & Josephine van Zeben, eds., Edward Elgar, forthcoming) [hereinafter Light & Orts, *Procurement*].

26. 5 U.S.C. §§ 553(a)(1)–(2) (2012).

human interactions between leaders in government and the private sector, including universities, to develop and share both technology and energy management best practices. Part III highlights three examples of the military-environmental complex in action: (1) the use of long-term power purchase agreements to develop renewable electricity generation capacity on military installations at private expense; (2) the use of competitive prizes or awards to stimulate the development of new technologies with promise to address environmental concerns, such as autonomous vehicles; and (3) the operationalization of human interaction between DoD and the private sector regarding best practices and innovation, such as through DoD's recent creation of the Defense Innovation Advisory Board.

Part IV then demonstrates that the judiciary has played a limited role in supervising the military-environmental complex. These informal interactions and prizes are rarely the subject of litigation in the courts. And while procurement decisions are subject to their own legal rules and doctrines, challenges to such decisions have likewise been rare, and the judiciary is deferential to the agency. To date, only one complaint has been filed challenging the development of renewable energy at a state Air National Guard base.²⁷

As a normative matter, I argue that the lack of judicial involvement contributes to the military-environmental complex's greatest strength—its nimble ability to address climate change from a different perspective than that of traditional environmental law, even in the face of skepticism about climate policy within other branches of government. Yet the lack of judicial supervision may also render some aspects of the military-environmental complex less durable than traditional environmental law in other ways—especially those aspects of green procurement that are grounded in executive orders. And though the goals of reducing energy use and national security are aligned right now—at least from DoD's perspective—those goals might at some point diverge.²⁸ Unlike other forms of environmental law that are more durable as a result of judicial review requiring the adherence to particular procedures for the purpose of achieving environmental goals or requirements set by Congress, some aspects of the military-environmental complex may be more easily undone or reversed if a new national security problem becomes paramount, because its locus of control lies within

27. *American Bird Conservancy v. Disbrow et al.*, No. 17-Cv-0547 (filed Mar. 27, 2017, D.D.C.).

28. *Cf., e.g., Winter v. Nat. Res. Def. Council*, 555 U.S. 7, 33 (2008) (holding that Naval sonar training with the potential to harm marine mammals cannot be enjoined pending completion of environmental review if enjoining the training would threaten national security).

the coordinated political branches of government. The lesson to take from all of this is that the military-environmental complex is an important and underappreciated form of environmental governance, especially when there is retrenchment within other agencies like EPA on climate policy. But it cannot fully replace traditional environmental law in the form of federal environmental statutes and regulations, which are more durable in other ways.

II. THE MILITARY-ENVIRONMENTAL COMPLEX: GREEN PROCUREMENT AND BEYOND

A. Procurement as a Tool of Environmental Governance

DoD's use of environmentally preferable purchasing rules is a significant aspect of the military-environmental complex. But governments around the world—not just the military—have increasingly employed “green procurement” as a form of environmental governance. This section addresses the impact of green procurement in general, while the next section looks more specifically at DoD green procurement rules and practices.

Procurement can have a significant impact on the environment.²⁹ In 2013, member countries within the Organisation for Economic Co-operation and Development (OECD) spent an average of 12.1 percent of their gross domestic products (GDP) on government procurement.³⁰ In 2013, the United States spent 10 percent of its GDP on procurement.³¹ DoD plays a dominant role in federal government procurement in the United States, especially with respect to energy. It is the single largest consumer of energy in the nation, responsible for more than three-quarters of all government

29. See Sarah E. Light & Eric W. Orts, *Parallels in Public and Private Environmental Governance*, 5 MICH. J. ENVTL. & ADMIN. L. 1 (2015) (arguing that both public procurement and private supply chain management are important tools of environmental governance) [hereinafter Light & Orts, *Parallels*]. Government procurement—based on actual government demand for goods, services, or energy—is distinct from other forms of environmental governance like subsidies or prescriptive rules, and should not be conflated with these other tools of governance. See *id.* at 47; See also Light & Orts, *Procurement*, *supra* note 25 (discussing environmental procurement in the United States and the European Union as a significant tool of environmental governance). Of course, governments use procurement to implement other, non-environmental social goals as well. For example, there are preferences in government procurement for small businesses. See 15 U.S.C. §§ 631–50 (2000); GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 19.201 (2016).

30. OECD, *Size of Public Procurement*, GOVERNMENT AT A GLANCE (2015). For a list of member countries, see *Members and Partners*, OECD, <http://www.oecd.org/about/member-sandpartners/> (last visited Apr. 17, 2017).

31. *Id.*

energy use.³² It is also the second largest purchaser of renewable energy in the country, after Google/Alphabet.³³

The increasing adoption by governments around the world, and by DoD in particular, of environmentally preferable purchasing rules can have a significant impact on the natural environment, on government itself, and on the private sector.³⁴ Public procurement at this scale can create significant, concentrated demand for goods, services, and sources of energy with certain environmental characteristics.³⁵ This concentrated government demand can provide necessary capital to develop new technologies at a perilous time in their development—during the so-called “Commercialization Valley of Death”—when neither risk-averse commercial lenders nor risk-prone venture capital firms are willing to provide financing.³⁶ Empirical studies have demonstrated that government procurement can stimulate technological innovation more effectively than general government subsidy programs.³⁷ And environmental procurement also can have significant “spillover” effects on private actors. One recent study has demonstrated, for example, that municipal adoption of a requirement that *government* buildings be certified under the Leadership in Energy and Environmental Design (LEED) standards increased *private* adoption of LEED in neighboring communities.³⁸ When procurement rules are focused on reducing energy use, in addition, such rules can reduce energy costs for government agencies. This last factor may be especially compelling in times of shrinking agency budgets.

32. Energy Info. Admin., *Defense Department energy use falls to lowest level since at least 1975*, TODAY IN ENERGY (Feb. 5, 2015), <http://www.eia.gov/todayinenergy/detail.cfm?id=19871>.

33. Eric Roston & Brian Eckhouse, *Waging America's Wars Using Renewable Energy*, BLOOMBERG (July 5, 2016), <http://www.bloomberg.com/news/articles/2016-07-05/waging-america-s-wars-using-renewable-energy>.

34. Section 201 of Executive Order 13,101 defines “environmentally preferable” goods and services as “products or services that have a lesser or reduced effect on human health and the environment when compared with competing products or services that serve the same purpose.” Exec. Order No. 13,101, § 201; 2 L of Purchasing § 34:11 (2d ed.) (2016) (discussing environmentally preferable purchasing by the federal government).

35. Jacob Edler & Luke Georghiou, *Public Procurement and Innovation—Resurrecting the Demand Side*, 36 RES. POL'Y 949–63 (2007) (noting that public procurement stimulates innovation more effectively than subsidies).

36. Light, *The Military-Environmental Complex*, *supra* note 1, at 898; BLOOMBERG NEW ENERGY FINANCE, CROSSING THE VALLEY OF DEATH: SOLUTIONS TO THE NEXT GENERATION CLEAN ENERGY PROJECT FINANCING GAP 1 (2010) (defining the “commercialization valley of death” as a period when neither low-risk seeking bank financing nor high-risk seeking venture capital funds are available for new technology development).

37. Edler & Georghiou, *supra* note 35, at 950–55 (discussing empirical studies on this point).

38. Timothy Simcoe & Michael W. Toffel, *Public Procurement and the Private Supply of Green Buildings*, 68 J. ENVTL. ECON. & MGMT. 411 (2014); *see also* Donald B. Marron, *Buying Green: Government Procurement as an Instrument of Environmental Policy*, 25 PUB. FIN. REV. 285–305 (1997) (discussing spillover effects of environmental procurement).

B. Procurement in the Military-Environmental Complex

Environmentally preferable purchasing rules for goods, services, and energy are a significant aspect of the military-environmental complex. The United States has incorporated environmental preferences for procurement by federal agencies since Congress enacted the Resource Conservation and Recovery Act (RCRA) in 1976.³⁹ Subsequently, through legislation, executive orders, and amendments to the Federal Acquisition Regulation (FAR), environmentally preferable purchasing rules have expanded to include requirements to purchase products that are designated as bio-based by the U.S. Department of Agriculture,⁴⁰ energy-efficient by the Department of Energy,⁴¹ water-efficient by the EPA,⁴² and non-ozone-depleting,⁴³ among other qualities. For example, the Energy Policy Act of 2005 requires agencies to procure energy-efficient products, and to undertake conservation efforts in water use.⁴⁴ The Energy Policy Act further requires federal agencies to either generate or purchase electricity from renewable sources in percentages that ratchet upward over time.⁴⁵ These statutory and regulatory authorities remain in effect and continue to drive agency action.

What is proving to be less durable, however, are a series of executive orders requiring federal agencies to take environmental action.⁴⁶ For example, in the energy and climate context, in 2007, President George W. Bush issued an executive order that required

39. Resource Conservation and Recovery Act of 1976, 42 U.S.C. § 6962(c) (2014) (requiring purchase of goods with recycled content).

40. Farm Security and Rural Investment Act of 2002, 7 U.S.C. § 8102 (2014).

41. U.S. DEPT. OF ENERGY, ENERGY EFFICIENCY AND RENEWABLE ENERGY: BUY ENERGY-EFFICIENT PRODUCTS: A GUIDE FOR FEDERAL PURCHASERS AND SPECIFIERS (2016), https://energy.gov/sites/prod/files/2016/07/f33/femp_epp_buyer_overview_1.pdf (discussing Federal Energy Management Program and Energy Star program).

42. GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 23.202 (requiring acquisition of goods and services that are water-efficient and promote innovation on water-efficient technology); *WaterSense*, EPA, <https://www3.epa.gov/watersense/> (last visited Apr. 17, 2017) (listing products from faucets to irrigation control techniques that are water-efficient).

43. GENERAL SERVS. ADMIN. ET AL., FEDERAL ACQUISITION REGULATION 23.803 (requiring agencies to prefer procurement of non-ozone-depleting substances); *Id.* 23.804 (contract clauses on non-ozone-depleting substances).

44. Energy Policy Act of 2005, Pub. L. No. 109-58, §§ 101–105, 119 Stat. 594, 605–11 (2005) (codified as amended at 42 U.S.C. §§ 8253–8259b); *see also* National Energy Conservation Policy Act, Sec. 553, 42 U.S.C. § 8259(b) (1998).

45. 42 U.S.C. § 15852 (2005).

46. The President can freely revoke prior executive orders by issuing a new executive order. Jack M. Beermann, *Presidential Power in Transitions*, 83 B.U. L. REV. 947, 973, 994–95 (2003). An executive order may be challenged in the courts on the basis that it exceeds the President's authority under a statute or the Constitution. *Youngstown Sheet & Tube Co. v. Sawyer*, 343 U.S. 579, 585–89 (1952) (striking down President Truman's order seizing private steel mills during a labor dispute).

agencies to reduce energy use in government buildings and to purchase hybrid or electric vehicles.⁴⁷ In 2009, President Obama signed Executive Order 13,514 on *Planning for Federal Sustainability in the Next Decade*, which expanded on the Bush Executive Order to set new requirements for the reduction of federal agency energy use.⁴⁸ In 2013, President Obama signed Executive Order 13,653 on *Preparing the United States for the Impacts of Climate Change*, which directed federal agencies to promote risk-informed decisionmaking and adaptive learning for climate preparedness and resilience.⁴⁹ In 2015, President Obama revoked the Bush executive order and his own prior Executive Order 13,514, with a new order, Executive Order 13,693 on *Planning for Federal Sustainability in the Next Decade*, that went further, requiring agencies to report and reduce greenhouse gas emissions arising out of their own activities, and directing the White House Council on Environmental Quality to publish a “Scorecard” demonstrating whether major government contractors report and set reduction targets for emissions within the federal government’s supply chain.⁵⁰

While many of these rules are generally applicable to all federal agencies, because DoD is such a large purchaser of goods, services, and energy, such generally applicable rules tend to have a significant impact on the military and its contractors.⁵¹ For example, the 2016 Federal Supplier Scorecard listed “major suppliers,” each of which received at least \$500 million in government contracts in the 2015 fiscal year.⁵² At least seven of the top ten contractors, and a significant number of the rest, were military contractors.⁵³

47. Exec. Order No. 13,423, 72 C.F.R. 3919, § 2(d)(g) (2007), *revoked by* Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015).

48. Exec. Order No. 13,514, 74 C.F.R. 52117, § 1 (2009), *revoked by* Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015). *See also* Sarah E. Light, *NEPA’s Footprint: Information Disclosure as a Quasi-Carbon Tax on Agencies*, 87 TUL. L. REV. 511, 562 (2013) (discussing Exec. Order No. 13,514).

49. Exec. Order No. 13,653, 78 C.F.R. § 66819 (2013), *revoked by* Exec. Order No. 13,783 (Mar. 28, 2017).

50. Exec. Order No. 13,693, 80 C.F.R. § 15871 (2015), *revoking* Exec. Order No. 13,514, 74 C.F.R. 52117, § 1 (2009), and *revoking* Exec. Order No. 13,423, 72 C.F.R. 3919 (2007), as well as several other Presidential memoranda; *see also* WHITE HOUSE COUNCIL ON ENVTL. QUALITY, IMPLEMENTING INSTRUCTIONS FOR EXEC. ORDER NO. 13,693: PLANNING FOR FEDERAL SUSTAINABILITY IN THE NEXT DECADE (2015).

51. For a discussion of how generally applicable environmental procurement rules may be implemented in the military in practice, *see TJAGSA Practice Note*, ARMY LAWYER 43 (JULY 2001).

52. WHITE HOUSE COUNCIL ON ENVTL. QUALITY, FEDERAL SUPPLIER GREENHOUSE GAS MANAGEMENT SCORECARD (2016), <https://obamawhitehouse.archives.gov/administration/eop/ceq/initiatives/sustainability/supplier-GHG>. These Scorecards were deleted from the White House website after the change in administration in January 2017. This citation reflects an archived link to the 2016 Scorecard.

53. *See id.* (listing the top ten government contractors as: Lockheed Martin, Boeing, General Dynamics, Raytheon, Northrop Grumman, McKesson Corp., United Technologies, L-3 Communications, Bechtel, and BAE Systems).

Notably, however, on March 28, 2017, President Trump issued Executive Order 13,783 on *Energy Independence and Economic Growth* that revoked Executive Order 13,653 on *Preparing the United States for the Impacts of Climate Change*.⁵⁴ And the 2017 Executive Order likewise revoked a September 2016 Presidential Memorandum on *Climate Change and National Security* to the heads of federal agencies with national security missions that had directed them to establish a framework “to ensure that climate change-related impacts are fully considered in the development of national security doctrine, policies, and plans.”⁵⁵ However, as of the date of publication, Executive Order 13,693, which most directly targets environmentally preferable purchasing by federal agencies, remains in effect.⁵⁶ Thus, while DoD may continue to pursue its national security mission, which is aligned with the environmental goals of reducing fossil fuel use and increasing renewable energy generation capacity in the United States, it is less clear that inter-agency coordination beyond the DoD will continue to take place in this sphere. And the judiciary essentially has essentially no role to play in policing the revocation of these prior executive orders.

Part III describes three different facets of the military-environmental complex that exist largely under the judicial radar: long-term power purchase agreements for renewable energy entered into pursuant to statutory authority; the use of prizes to stimulate the development of new technologies; and human interaction on best innovation practices. None of these has generated significant judicial involvement, as I will demonstrate in Part IV.

III. THREE FACETS OF THE MILITARY-ENVIRONMENTAL COMPLEX

The military-environmental complex includes environmental procurement rules, but is broader than procurement alone. It also encompasses the use of “prizes” like the Defense Advanced Research Projects Agency (DARPA) Grand Challenge, which is widely credited with stimulating the development of autonomous vehicles, and more informal interpersonal interaction between

54. See Executive Order on *Promoting Energy Independence and Economic Growth*, *supra* note 9.

55. Memorandum for the Heads of Executive Departments and Agencies: *Climate Change and National Security* (Sept. 21, 2016) (White House, Office of the Press Secretary), *revoked by* Executive Order 13,783 on *Promoting Energy Independence and Economic Growth*, *supra* note 9.

56. The Sabin Center for Climate Change Law at Columbia Law School tracks both regulatory and deregulatory action on climate change, including with respect to executive orders. *Regulation Database – Executive Orders*, COLUMBIA LAW SCHOOL SABIN CENTER FOR CLIMATE CHANGE LAW, <http://columbiaclimatelaw.com/resources/climate-deregulation-tracker/database/executive-orders/#13693> (last visited May 2, 2017).

the government and the private sector through programs like the Defense Innovation Board.

*A. Traditional Purchasing Power Transformed:
Renewable Installation Energy: "25 by 25"*

In addition to these generally applicable procurement rules, Congress has given DoD certain unique obligations and authorities with respect to energy. Specifically, Congress has directed DoD "to produce or procure not less than 25 percent of the total quantity of facility energy it consumes within its facilities during fiscal year 2025 and each fiscal year thereafter from renewable energy sources."⁵⁷ The Army, Navy, and Air Force have developed plans to reach this "25 by 25" mandate, each service having the responsibility of developing one gigawatt of renewable energy in that timeframe.⁵⁸ In addition to this mandate, Congress has given DoD special statutory authority that other federal agencies lack—the authority to enter into thirty-year Power Purchase Agreements (PPA).⁵⁹ Under 10 U.S.C. § 2922a, DoD may enter into such PPAs "for the provision and operation of energy production facilities on real property under the Secretary's jurisdiction or on private property and the purchase of energy produced from such facilities."⁶⁰ Under a PPA, the federal agency agrees to purchase power for a specified period of time, but a private firm "finances, owns, operates, and maintains" the power generation facility.⁶¹ Other agencies in the federal government can only enter into ten-year power purchase agreements under current law—a timeframe that is less favorable for private developers to recoup their initial investments in renewable energy generation infrastructure.⁶² For DoD, renewable energy can promote energy security, resilience, and independence from an aging electric power grid, which is arguably vulnerable to attack.⁶³

57. 10 U.S.C. § 2911(e) (2012).

58. The White House, *Fact Sheet: Obama Administration Announces Additional Steps to Increase Energy Security* (Apr. 11, 2012), <https://www.whitehouse.gov/the-press-office/2012/04/11/fact-sheet-obama-administration-announces-additional-steps-increase-ener>. The U.S. Marine Corps is an operating unit within the U.S. Navy. See *U.S. Navy Organization—An Overview*, U.S. Navy, <http://www.navy.mil/navydata/organization/org-over.asp>, archived at <http://perma.cc/Z4CN-CMML>.

59. 10 U.S.C. § 2922a(a) (2006).

60. 10 U.S.C. § 2922a(a)(2) (2006); Light, *The Military-Environmental Complex*, *supra* note 1, at 926–27 (discussing DoD's unique authority).

61. *Third Party Financing*, U.S. ARMY CORPS OF ENG'RS, <http://www.hnc.usace.army.mil/Missions/Installation-Support-and-Programs-Management/Energy-Division/Energy-Landing-page/Third-Party-Financing/> (last visited Apr. 17, 2017).

62. FAR pt. 41.101 (2012); 40 U.S.C. § 501 (2012).

63. ENLISTING THE SUN: POWERING THE U.S. MILITARY WITH SOLAR ENERGY 2013, SOLAR ENERGY INDUSTRIES ASS'N. (2013), <http://www.seia.org/research-resources/enlisting-sun-powering-us-military-solar-energy-2013>.

And DoD manages more than 500 installations in the United States and overseas, covering approximately 2.3 billion square feet of building space, yielding potentially significant demand.⁶⁴ With DoD budgets subject to political control in an era of cost-cutting, it also helps that the agency need not pay construction or maintenance costs for the generation infrastructure itself.

As a practical matter, the military has used this purchasing authority (along with other statutory authorities), to enter into long-term contracts with private developers who construct large-scale renewable energy generation facilities both on and off of military land.⁶⁵ Each branch of the military has created a special office to coordinate with the private sector: the Army Office of Energy Initiatives (OEI),⁶⁶ the Navy Renewable Energy Program Office (REPO),⁶⁷ and the Air Force Facility Energy Center (AFFEC).⁶⁸ These offices have both supported the construction of renewable energy generation facilities and entered into renewable energy PPAs.⁶⁹

To date, there have been almost no legal challenges to these programs in the courts. For example, when the Army issued its Environmental Assessment and Finding of No Significant Impact under NEPA for the construction of large-scale solar arrays on DoD land, only three comments were filed, and only one was arguably negative, contesting the programmatic nature of the assessment.⁷⁰ On March 27, 2017, an environmental organization filed suit in the district court for the District of Columbia, challenging the construction of a wind turbine by the Ohio Air National Guard, which is a reserve component of the U.S. Air Force.⁷¹ The suit raises

64. OFFICE OF THE DEPUTY UNDER SEC'Y OF DEF. (INSTALLATIONS & ENV'T), DEPARTMENT OF DEFENSE ANNUAL ENERGY MANAGEMENT REPORT: FISCAL YEAR 2011, at 14 (2012), <http://www.acq.osd.mil/ie/energy/library/FY.2011.AEMR.PDF>, archived at <http://perma.cc/8HVW-9P3Q>.

65. Light, *The Military-Environmental Complex*, *supra* note 1, at 927–29 (discussing enhanced-use leases, energy savings performance contracts, and utility energy service contracts).

66. *About Us*, U.S. ARMY OFFICE OF ENERGY INITIATIVES, <http://www.asaie.army.mil/Public/ES/oei/about.html> (last visited Apr. 17, 2017).

67. *Resilient Energy Program Office*, U.S. NAVY—ENERGY, ENVIRONMENT AND CLIMATE CHANGE, <http://greenfleet.dodlive.mil/energy/repo-3/> (last visited Apr. 17, 2017).

68. U.S. AIR FORCE, AIR FORCE RENEWABLE ENERGY PROGRAMS (2011), http://energy.gov/sites/prod/files/2013/10/f4/fupwg_spring11_gray.pdf.

69. *Id.*; AMANDA SIMPSON, U.S. ARMY OFFICE OF ENERGY INITIATIVES, FEDERAL UTILITY PARTNERSHIP WORKING GROUP SEMINAR 1, 8 (2014), http://energy.gov/sites/prod/files/2014/12/f19/fupwg_fall14_simpson.pdf; *Resilient Energy Program Office*, U.S. NAVY—ENERGY, ENVIRONMENT AND CLIMATE CHANGE, <http://greenfleet.dodlive.mil/energy/repo-3/> (last visited Apr. 17, 2017).

70. U.S. Army, FINDING OF NO SIGNIFICANT IMPACT FOR CONSTRUCTION AND OPERATION OF SOLAR PHOTOVOLTAIC RENEWABLE ENERGY PROJECTS ON ARMY INSTALLATIONS (2017), https://www.aec.army.mil/Portals/3/nepa/SolarPV_PEA_FNSI.pdf.

71. *See American Bird Conservancy v. Disbrow et al.*, No. 17-Cv-0547 (filed Mar. 27, 2017, D.D.C.).

claims under both NEPA and the Endangered Species Act.⁷² NEPA review is both deferential and procedural; a court cannot order an agency not to undertake an action as long as it has complied with the relevant analysis and disclosure procedures.⁷³ In contrast, if an agency has violated the Endangered Species Act, a court can order the agency to halt its action.⁷⁴ It remains to be seen how this litigation will play out, or if other suits will be filed. To date, however, no court has limited DoD's ability to meet its "25 by 25" Congressional mandate.

B. Prizes for Innovation: The DARPA Grand Challenge

A very different facet of the military-environmental complex is the use of prizes. This method is likewise driven by the national security interest—the military offers a “prize” for the development of technology that it may seek to purchase in the future. But the military is not purchasing anything *today*. Rather, prizes can stimulate the development of technologies that may still take time to be available for military or commercial use. Thus, prizes go beyond procurement.

DoD has used prizes in many contexts, including to stimulate the development of technologies that can reduce energy use. For example, in 1990 Congress created the Strategic Environmental Research and Development Program (SERDP),⁷⁵ which offers financial support for research and development of technologies that “enhance the capabilities of the departments to meet their environmental obligations.”⁷⁶ And while the focus is not always intentionally on technologies with environmentally positive qualities, there are times that military prizes can stimulate the development of technologies that are likely to have a positive environmental impact.

A recent example is the DARPA Grand Challenge, which was a milestone in the development of autonomous vehicle (AV) technology. In 2001, Congress mandated that “by 2015, one-third of operational ground combat vehicles [be] unmanned.”⁷⁷ And in the National Defense Authorization Act (NDAA) for the 2003 fiscal year, Congress authorized DoD to award cash prizes “to promote science, mathematics, engineering, or technology education in

72. *Id.*

73. *Robertson v. Methow Valley Citizens Council*, 490 U.S. 332 (1989).

74. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153 (1978).

75. National Defense Authorization Act for Fiscal Year 1991, Pub. L. No. 101-510, § 1801(a), 104 Stat. 1485, 1750–57 (1990) (codified as amended at 10 U.S.C. § 2901–04 (2012)).

76. 10 U.S.C. § 2901(b)(1) (2012); Light, *The Military-Environmental Complex*, *supra* note 1, at 924–25 (discussing SERDP).

77. National Defense Authorization Act for Fiscal Year 2001 (S. 2549, Sec. 217).

support of [DoD's] missions."⁷⁸ While the military desires the development of AV technology to promote its national security interests, including reducing the loss of life on the battlefield through greater use of unmanned vehicles,⁷⁹ AVs hold significant potential to reduce fossil fuel use in civilian transportation. There are several ways in which AVs may reduce fossil fuel use.⁸⁰ First, AVs may facilitate the optimization of vehicle speeds through the use of "platooning" in ways that will increase fuel economy.⁸¹ Platooning can reduce the distance between vehicles and increase travel lane capacity.⁸² The theory goes that this will increase fuel economy by decreasing vehicle congestion on highways. A smoother traffic flow (even if it is at a lower "peak" speed), can improve vehicle fuel economy by allowing vehicles to travel, on average, at a higher "effective" speed.⁸³ Second, if as advocates contend, AVs can reduce the risk of accidents, cars can be made of lighter materials.⁸⁴ Lighter cars require less power to operate, which likewise can reduce fuel consumption and facilitate greater use of electric or alternative fuel vehicles.⁸⁵ Lighter vehicles require smaller electric batteries than heavier vehicles to go the same distance, which can, in turn, lower the cost of electric vehicles for ordinary consumers.⁸⁶ Smaller batteries also have a lesser environmental impact from disposal at the end of their lifecycle than larger batteries.⁸⁷ There are many unknowns about how AV technology will develop, however. It remains possible that if AVs reduce the costs associated with driving (for example, by permitting drivers to read or work while commuting), they may increase vehicle miles traveled and suburban "sprawl."⁸⁸

In 2004, DARPA inaugurated its first "Grand Challenge" to stimulate the development of AVs.⁸⁹ It offered \$1 million to the first team whose AV could cross the finish line of a 142-mile course

78. National Defense Authorization Act for Fiscal Year 2003 (H.R. 4546, Sec. 2374b).

79. See PETER W. SINGER, *WIRED FOR WAR: THE ROBOTICS REVOLUTION AND CONFLICT IN THE 21ST CENTURY* (2009) (discussing the military's role in stimulating the development of robotic technologies).

80. JAMES M. ANDERSON, ET AL., *AV TECHNOLOGY: A GUIDE FOR POLICYMAKERS* (Rand Corp. eds. 2016).

81. *Id.* at 21–22.

82. *Id.* at 30.

83. *Id.*

84. *Id.* at xvi, 5, 30.

85. *Id.* at 30.

86. *Id.* at 34.

87. *Id.*

88. *Id.* at 37.

89. *Overview*, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY, <http://archive.darpa.mil/grandchallenge05/overview.html> (last visited Apr. 17, 2017); Defense Advanced Research Projects Agency, *Robotics Technology Increasingly Important to Department of Defense*, http://archive.darpa.mil/grandchallenge04/media/fut_military_rel.pdf (last visited Feb. 11, 2017).

through the Nevada desert.⁹⁰ None of the fifteen teams that entered the Challenge passed mile eight.⁹¹ In 2005, DARPA offered \$2 million to the winning team in the second Grand Challenge on a 132-mile course, again through the Nevada desert.⁹² Five teams completed the course, and the winning team completed the course in just under seven hours.⁹³ In 2007, DARPA offered \$2 million to the winner of the Urban Challenge—the next phase of AV development.⁹⁴ The Urban Challenge required teams to build an AV that could navigate in an urban environment, facing such complex situations as merging lanes, parking, and crossing intersections.⁹⁵ Of the eleven teams selected to compete in the final event, six teams ultimately completed the course.⁹⁶ Many sources credit these Grand Challenges for accelerating the development of AVs.⁹⁷ There have been no legal challenges to this type of prize or award program to stimulate the development of new technology. Courts simply play no role.

C. Beyond Procurement: Human Interaction

The military-environmental complex also goes beyond procurement to incorporate iterative human interaction between the military and the private sector. Recently, DoD created a Defense Innovation Advisory Board and Defense Innovation Experimental Unit to promote innovation and best management practices. While not created specifically to address environmental or energy concerns, such institutional interaction can have positive effects in those spheres.

90. Joseph Hooper, *From DARPA Grand Challenge 2004 DARPA's Debacle in the Desert*, POPULAR SCIENCE (Jun. 4, 2004), <http://www.popsci.com/scitech/article/2004-06/darpa-grand-challenge-2004darpas-debacle-desert>.

91. *Id.*

92. Steve Russell, *DARPA Grand Challenge Winner: Stanley the Robot*, POPULAR MECHANICS (Jan. 8, 2006), <http://www.popularmechanics.com/technology/robots/a393/2169012/>.

93. *Id.*

94. *DARPA Urban Challenge*, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY, <http://archive.darpa.mil/grandchallenge/> (last visited Apr. 17, 2017).

95. *Id.*

96. *Id.*

97. *See, e.g.*, DAVID A. MINDELL, OUR ROBOTS, OURSELVES: ROBOTICS AND THE MYTHS OF AUTONOMY 204 (2015) (noting that the 2007 DARPA Grand Challenge “generated some of the technology on which the Google car is based” and that the then-head of Google’s driverless car project was the lead engineer on the team that won the Challenge); SINGER, *supra* note 79, 135–38 (2009) (discussing the first two iterations of the Grand Challenge); Ryan Calo, *Robotics and the Lessons of Cyberlaw*, 103 CAL. L. REV. 513, 526–27 (2015) (discussing the military’s investments in robotics and the Grand Challenge); Sarah E. Light, *Advisory Nonreemption*, 95 WASH. U. L. REV. (forthcoming 2017) (noting this connection between military demand and the development of autonomous vehicles).

The goal of the Defense Innovation Advisory Board (“the Board”), established in 2016 by the Secretary of Defense, is to “provide advice on the best and latest practices in innovation that [DoD] can emulate.”⁹⁸ Modeled on the Defense Business Board, this Board consists of a diverse group of innovators, scholars, and leaders from public and private organizations.⁹⁹ The Board will discuss issues in areas such as “rapid prototyping, iterative product development, complex data analysis in business decision making, the use of mobile and cloud applications, and organizational information sharing.”¹⁰⁰ While not expressly focused on environmental goals, all of these best practices can be important in the environmental and energy arenas.

The Defense Innovation Unit Experimental (DIUx), founded in April 2015, serves as a bridge between Silicon Valley start-up companies and DoD. The goal of the DIUx is to develop innovations “through sources traditionally not available to the Department of Defense” in order to accelerate “technology into the hands of the men and women in uniform.”¹⁰¹ The mission of DIUx is to search for emerging and breakthrough technologies to promote innovation in DoD. For example, DIUx is working on wind- and solar-powered unmanned maritime vehicles to collect data that is both operationally and scientifically important to DoD from areas that manned vehicles cannot reach.¹⁰² Formalizing these interactions between DoD and the private sector can yield significant innovation in both the civilian and military realms. These kinds of interactions generate no litigation—there are simply no legal standards to apply.¹⁰³ But such interactions can yield collaboration, insight, and knowledge in the service of technological and behavioral innovation.

98. Press Release, U.S. Dep’t of Def., Statement by Pentagon Press Secretary Peter Cook on the Establishment of the Defense Innovation Advisory Board (Mar. 2, 2016), <http://www.defense.gov/News/News-Releases/News-Release-View/Article/684201/statement-by-pentagon-press-secretary-peter-cook-on-the-establishment-of-the-de>; Peter Hsu, *Despite Trump, Silicon Valley’s Ties Remain Strong*, WIRED (Feb. 10, 2017), <https://www.wired.com/2017/02/despite-trump-silicon-valleys-pentagon-ties-stay-strong/> (discussing continuity of the Board under the new administration).

99. *Id.*

100. *Id.*

101. *Mission*, DEFENSE INNOVATION UNIT EXPERIMENTAL (DIUx), <https://www.diux.mil/> (last visited Apr. 17, 2017).

102. Cheryl Pellerin, *Carter Reviews New Technologies from DoD’s Silicon Valley Unit*, U.S. DEPT OF DEF. (Mar. 4, 2016), <http://www.defense.gov/News/Article/Article/686507/carter-reviews-new-technologies-from-dods-silicon-valley-unit>; U.S. DEPT OF DEF., *Department of Defense Fact Sheet: DIUx 2.0: Continuing to Expand Outreach to the Innovation Economy* (2015), http://www.defense.gov/Portals/1/Documents/DIUx_Fact_Sheet.pdf.

103. *See infra*, Part IV.

IV. A LIMITED ROLE FOR COURTS

Of course, many statutory and regulatory actions can be challenged in the courts. But for the military-environmental complex, judicial supervision has been virtually non-existent. There has been no litigation surrounding the military's use of prizes like the DARPA Grand Challenge or the establishment of an Innovation Board.¹⁰⁴ Nor have there been any significant legal challenges to DoD's application of environmentally preferable procurement rules. The primary locus of debate over the military-environmental complex has been within the political branches, for example, within Congress as elected representatives disagree over policy or military spending in the National Defense Authorization Acts, within DoD itself, or within the White House when a new administration takes office.

To offer just one example, some members of Congress both within the Senate and the House have sought to limit the ability of DoD to expend funds on environmental or climate-related projects,¹⁰⁵ or to take lifecycle emissions into account when considering fuel purchases.¹⁰⁶ So in that context, disputes do exist about what goals and projects the military should pursue, as well as how deeply the military should care about climate change. The disputes are simply resolved in the policymaking branches, in elections, and within military strategic decision-making, rather than through litigation and the courts.

While the APA generally governs the process by which agencies adopt regulations, and the standards for judicial review of such regulations,¹⁰⁷ most aspects of the military-environmental complex do not involve notice-and-comment regulations adopted by DoD. The Tucker Act provides the procedures by which disappointed contract bidders may sue the United States in the Court of Federal Claims, or in some cases, federal district courts.¹⁰⁸ Review of agency action

104. Such actions would likely fall into the category of decisions committed to "agency discretion" under the APA, because there is no legal standard against which to measure them. See 5 U.S.C. § 701(a)(2) (2012).

105. Light, *The Military-Environmental Complex*, *supra* note 1, at 935 (discussing efforts to limit DoD's efforts to obtain LEED Platinum and Gold certifications for its buildings based on concerns that the LEED standards do not promote the use of domestic timber).

106. *Id.* at 918–19 (discussing DoD's support of retaining a statutory requirement to take lifecycle emissions into account despite congressional attempts at repeal); John Eick, *Bipartisan Group of U.S. Senators Working to Repeal Section 526*, AM. LEG. EXCHANGE COUNCIL (Apr. 28, 2015), <https://www.alec.org/article/bipartisan-group-of-u-s-senators-working-to-repeal-section-526/> (discussing recent congressional efforts at repeal).

107. See 5 U.S.C. § 553, 5 U.S.C. § 706 (2012).

108. 28 U.S.C. § 1491(a)(1) (2012) (granting jurisdiction over claims against the United States upon an "express or implied contract"); *Id.* § 1491(b)(1) (granting concurrent jurisdiction in the Court of Federal Claims and the U.S. district courts to hear objections to bid solicitations or violations of law in connection with procurement).

in such suits is expressly deferential under the standards set forth in the APA.¹⁰⁹ Thus, agency action may be set aside only if the agency acted in a manner that was “arbitrary, capricious, an abuse of discretion, or otherwise not in accordance with law.”¹¹⁰ In addition, “in exercising jurisdiction” in such suits, the courts are directed to “give due regard to the interests of national defense and national security”¹¹¹—an extra degree of deference not afforded to ordinary procurement and contracting decisions by other agencies.

Challenges to environmentally preferable purchasing decisions are rare. And in those that have occurred, courts have largely deferred to agency decisions, regardless of whether those decisions were more or less environmentally friendly. For example, in *National Recycling Coalition v. Reilly*, the D.C. Circuit was asked to consider whether EPA’s interpretation of an exception to the requirement to purchase materials with recycled content was reasonable.¹¹² The statute provided that a “decision not to procure such items shall be based on a determination that such procurement items . . . are only available at an unreasonable price.”¹¹³ EPA interpreted this provision broadly to mean that “a price is ‘unreasonable’ if it is greater than the price of a competing product made of virgin material.”¹¹⁴ The court upheld EPA’s interpretation of the statute as reasonable under the two-step analysis in *Chevron v. Natural Resources Defense Council*.¹¹⁵ EPA contended that recycled paper is generally less, rather than more expensive, than virgin paper.¹¹⁶

A second case, *United States Brewers Association v. EPA*, likewise upheld the agency’s interpretation of RCRA.¹¹⁷ At issue in that case were EPA’s Beverage Container Guidelines, which required that all beverage containers sold at federal facilities be “returnable” pursuant to a five-cent deposit scheme.¹¹⁸ In upholding EPA’s Guidelines as reasonable, the court explained:

109. *Id.* § 1491(b)(4).

110. 5 U.S.C. § 706(2)(A) (2012); *Blue & Gold Fleet, LP v. United States*, 70 Fed. Cl. 487 (2006) (upholding agency action).

111. 28 U.S.C. § 1491(b)(3) (2012).

112. *Nat’l. Recycling Coal. v. Reilly*, 884 F.2d 1431, 432–33 (D.C. Cir. 1989).

113. *Id.* at 1432–33 (citing 42 U.S.C. § 6962(e)(1)(C)).

114. *Id.* at 1435 (citing 53 Fed. Reg. 23,546); *Freedom Graphic Sys., Inc. v. United States*, No. Civ. A. 91-0023, 1991 WL 16769, at *3 (D.D.C. Jan. 25, 1991) (where agency has not established a price preference for recycled goods, agency may reject higher-priced recycled goods as being of an “unreasonable price”).

115. *Nat’l. Recycling Coal.*, 884 F.2d at 1435 (citing *Chevron U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837, 842–45 (1984)).

116. *Id.* at 1436 (citing H.R. Rep. No. 198, 98th Cong., 2d Sess. 71, reprinted in 1984 U.S.C.A.N. 5576, 5630).

117. *U.S. Brewers Assoc. v. EPA*, 600 F.2d 974 (D.C. Cir. 1979).

118. *Id.* at 976.

It is settled that the federal government may exact, from those with whom it does business, compliance with standards or requirements different from those found in the marketplace generally. The Guidelines . . . do not attempt to impose on commercial distributors any duty to do business with the federal government; they merely require that those who choose to do business comply with certain requirements.¹¹⁹

In addition to these challenges, unhappy bidders for government contracts may file an administrative “protest” challenging the conditions imposed in a Solicitation for Offers as “overly restrictive” before the Comptroller General of the United States.¹²⁰ However, review by the Comptroller General is likewise extremely deferential.¹²¹

Agency acquisition officials have broad discretion in [] selecting evaluation factors that will be used in an acquisition, and we will not object to the use of particular evaluation factors or an evaluation scheme so long as the factors used reasonably relate to the agency’s needs in choosing a contractor that will best serve the government’s interests.¹²²

In response to such a protest, the agency need only “establish that the specification is reasonably necessary to meet its needs.”¹²³ For example, in *Matter of King*, a disappointed bidder argued that a Solicitation for Offers was overly restrictive for a number of reasons, including its requirement that the applicant general contractor address its experience with the LEED standards, and its statement that contractors with greater LEED experience would be evaluated more favorably.¹²⁴ The Comptroller General found that the agency established that the requirement was reasonably related to meeting the agency’s needs, as it was obligated to take environmental performance into account pursuant to executive orders, the FAR, and other law.¹²⁵

119. *Id.* at 984 (citing *Perkins v. Lukens Steel Co.*, 310 U.S. 113, 127 (1940); *Contractors Ass’n of E. Pa. v. Sec’y of Labor*, 442 F.2d 159 (3d Cir. 1971)).

120. *See, e.g.*, *Matter of King Constr. Co.*, B-298276, 2006 CPD P 110 (Comp. Gen. July 17, 2006).

121. *USA Fabrics, Inc.*, B-295737, 2005 CPD P 82 at *4 (Comp. Gen. Apr. 19, 2005).

122. *Olympus Bldg. Servs., Inc.*, B-282887, 99-2 CPD P 49 at *2 (Comp. Gen. Aug. 31, 1999); *ViON Corp.*, B-256363, 94-1 CPD P 373 at *7 (Comp. Gen. June 15, 1994).

123. *Matter of King*, *supra* note 120, at *2 (citing 41 U.S.C. § 253a(a)(1)(A), (2)(B)).

124. *Id.* at *4.

125. *Id.* at *4–5 (citing Exec. Order 13,123, at 7, 64 Fed. Reg. 30,8521 (June 3, 1999), FAR §§ 11.002(d)(1), 23.202).

Thus, while a judicial forum is open to challenge environmentally preferable procurement rules or agency contracts, agencies are afforded deference when applying such rules to their own purchases. This deference exists whether agencies are promoting broader environmental protection with their purchases, or taking a more restricted view. And if the agency were acting in the national security interest of the United States, arguably even more deferential review would be appropriate.

V. CONCLUSION: OPTIMISM WITH CAUTION

The military-environmental complex serves as a potent reminder that not all environmental law is found in judicial opinions. In this particular context, the views of Congress, the President, and DoD itself are far more consequential than those of the judiciary. And while this means that DoD may be more nimble than other agencies in achieving environmental or energy goals that align with the national security interest, this lack of judicial supervision has a downside as well. Because the military-environmental complex is motivated by national security concerns, rather than concerns about the environment *per se*, there may be times when the military's national security goals will be in tension with goals of environmental protection or reduction of fossil fuel use. Or a new administration can simply seek to reverse the climate-friendly policies of a prior administration for other reasons. Reversal or limiting of policies is easier when those policies are embodied in informal agency actions like procurement decisions that receive deference, agency interpretations, and presidential executive orders, than if they are embodied in duly promulgated regulations or statutes.

This limited judicial role therefore renders certain aspects of the military-environmental complex less durable than other broadly applicable environmental rules, regulations, and statutory provisions whose reversal would be subject to more exacting judicial scrutiny. Of course, statutes like the Energy Policy Act or DoD's statutory authority to enter into thirty-year PPAs are more durable than other aspects of the military-environmental complex grounded in executive orders. Once a prize like the Grand Challenge has stimulated the development of new technologies like autonomous vehicles, these innovations cannot be uncreated. And once human interaction between the military and the private sector has taken place, the lessons exchanged cannot be unlearned, though new lessons may not be learned at all. And it may turn out to be the case that the views of the military are sufficiently compelling as to

persuade climate skeptics to pursue climate-friendly policies.¹²⁶ So while the military-environmental complex may have its limits, it is important to recognize that some durable sources of authority remain. This phenomenon will remain important as long as DoD itself continues to view the goals of climate mitigation and national security as aligned.

126. Light, *Valuing National Security*, *supra* note 1 (proposing this hypothesis).

**THE MILITARY-ENVIRONMENTAL COMPLEX
AND THE COURTS:
COMMENT TO SARAH LIGHT**

SHI-LING HSU*

In the United States, the military has always received special deference, culturally and legally. Servicemen and women are allowed to board commercial aircraft early. In Florida, as in other states, military personnel registering their cars are not required to pay an initial registration fee.¹ In environmental law, military exemptions are common. Section 118 of the Clean Air Act, which applies to pollution from federal facilities, provides that “[t]he President may exempt any emission source of any department, agency or instrumentality in the executive branch from compliance with such a requirement if he determines it to be in the paramount interest of the United States to do so.”² Harm to marine mammals under the Marine Mammal Protection Act is generally interpreted broadly, but special provisions demote some of the harm caused by “military readiness activit[ies].”³ Section 7(j) of the Endangered Species Act, the “pit bull” of environmental statutes,⁴ provides that “[n]otwithstanding any other provision of this chapter, the [Endangered Species] Committee shall grant an exemption for any agency action if the Secretary of Defense finds that such exemption is necessary for reasons of national security.”⁵

Far from expressing dismay over military exceptionalism, Sarah Light’s contribution to this *Environmental Law Without Courts* Symposium points out how the “military-environmental complex” (MEC) has operated as a form of environmental law outside of review of the courts.⁶ Defining the MEC as the Department of Defense (DoD) working with Congress, the President, and private military contractors, Light discusses three case studies in which the MEC has, purposefully or incidentally, promoted environmental goals as part of its national security mandate: (1) procurement through long-term renewable energy contracts, (2) using prizes to stimulate innovation, and (3) stimulating human interaction on

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1. FLA. STAT. § 320.072(d) (2015).

2. Clean Air Act § 118(b), 42 U.S.C. § 7418(b) (1972).

3. Marine Mammal Protection Act, § 3, 16 U.S.C. § 1362(18) (2003).

4. See, e.g., Steven P. Quarles, *The Pit Bull Goes to School: The Endangered Species Act at 25: What Works?* 15 ENVTL. F. 55, 55 (1998).

5. Endangered Species Act § 7(j), 16 U.S.C. § 1536(j) (1973).

6. Sarah E. Light, *The Military-Environmental Complex and the Courts*, 32 J. LAND USE & ENVTL. L. 455 (2017).

best practices.⁷ I will refer to these as “MEC green behavior.” Military exceptionalism seems to have created the safe space for social responsibility that is structurally limited in other parts of corporate America. This is not to greenwash the MEC—it is unlikely that any corporation would risk the embarrassment of potentially extensive harm to charismatic cetaceans that is incident to the testing of a vital military readiness technology, SURTASS/LFA, or Navy sonar technology.⁸ But clearly, one social benefit of military exceptionalism is that if the MEC wishes to pursue a green objective, it can do so with much less fear of retribution from shareholders, politically-motivated members of Congress, or the Competitive Enterprise Institute.⁹

I join Light in nodding to the progress made by the MEC in advancing some environmental goals, and agree that there is much good that can continue to be done by the MEC. Among other things, DoD will be a critical experimenter and adopter of a variety of adaptation strategies. The world’s largest naval base in Norfolk is sinking, and what the U.S. Navy does to adapt will tell us a lot about ways to deal with sea level rise.¹⁰ But it is worth drawing a distinction among the three case studies described by Light, because I am not sure all of this should be celebrated. In particular, there is a crucially important difference between energy procurement and the latter two forms of green behavior on the part of the MEC.

By its nature, procurement is an exchange—DoD is the consumer, and some private contractor is the supplier. The benefits are primarily private—DoD gets a good or service, and the suppliers receive payment. To be sure, there are often public side-benefits to the otherwise private transaction, along the lines described by Professor Light.¹¹ Especially for renewable energy, economies of scale from large military contracts are likely to be helpful in the industrial development of renewable energy sources. Some have

7. *Id.*

8. *See, e.g.,* *Winter v. NRDC*, 555 U.S. 7 (2008).

9. The Competitive Enterprise Institute is a non-profit public policy organization dedicated to advancing the principles of limited government, free enterprise, and individual liberty. *About*, COMPETITIVE ENTERPRISE INST., <https://cei.org/about-cei> (last visited Apr. 2, 2017). The Competitive Enterprise Institute has aggressively fought climate policy, and has launched personal attacks on climate scientists, with one columnist writing of Pennsylvania State University climate scientist Michael Mann, that “[he] could be said to be the Jerry Sandusky of climate science, except that instead of molesting children, he has molested and tortured data.” Chelsea Harvey, *In the Age of Trump, a Climate Change Libel Suit Heads to Trial*, WASH. POST (Dec. 23, 2016), https://www.washingtonpost.com/news/energy-environment/wp/2016/12/23/in-the-age-of-trump-a-climate-science-libel-suit-heads-to-trial/?utm_term=.35a04f870b41.

10. *See* Yuki Noguchi, *As Sea Levels Rise, Norfolk is Sinking and Planning*, NPR (June 24, 2014), <http://www.npr.org/2014/06/24/324891517/as-sea-levels-rise-norfolk-is-sinking-and-planning>.

11. Light, *supra* note 6, at 456.

noted that renewable energy technologies lag behind well-developed fossil fuel industries in the amount of knowledge that has been accumulated over time, fossil technologies enjoying almost a century's head start.¹² But on the other side of the ledger is the fact that the military is making some judgment about what is best, and doing so from within a decision structure that is typically competent, but not typically an incubator of creativity or challenge, and usually quite insulated from the kinds of constraints that everybody else faces. We appropriately have faith in markets to sniff out the most truly promising technologies, not military decision processes.

We should thus be a bit careful about embracing procurement—even long-term renewable energy contracts—too ardently, despite the benefits outlined above. We might prefer that DoD buy renewable energy instead of fossil fuel-generated energy on its own merits; the social cost of carbon could just well be large enough to justify the taxpayer paying a price premium for renewable energy rather than fossil fuel-fired energy. But which renewable energy sources? The MEC makes judgments about those sources but how do we know that those judgments are correct, or that they accurately forecast the state of the technological future? We do not. The problem with the MEC making these decisions is that it is a decision that should be made with the input of market signals, which are mostly blocked out of the military procurement process.

The MEC has the greatest potential to advance environmental goals by harnessing its enormous potential for research and development. Using taxpayer dollars to advance environmental goals as a side benefit is really most justifiable if the program generates positive externalities. And the positive externality generated by research and development is knowledge. Toward this end, the latter two MEC case studies identified by Professor Light—prizes and human interaction over best practices—are likely to generate the most knowledge.

Why would a prize be a better incubator of renewable energy technology than a long-term contract, which seems so much simpler? Imagine that the most efficient renewable energy source can generate X kilowatt-hours over Y years at a price of $\$Z$. Now imagine two different tools: (a) a long-term renewable energy contract for X kilowatt-hours over Y years at a price of $\$Z$, and (b) issuing a prize for a long-term contract for the lowest-cost bid for X kilowatt-hours over Y years. Would there be a difference in outcome? Quite possibly not, but perhaps. It is entirely possible that a different and superior renewable energy source might

12. See Daron Acemoglu et al., *The Environment and Directed Technical Change*, National Bureau of Economic Research Working Paper 15451 (2009).

emerge. Alternatives to the dominant renewable energy technologies—hydroelectric (dams), wind, and solar photovoltaic—have emerged recently. These alternatives include solar, thermal, and hydrokinetic energy, which have certain advantages that give them the potential to upset the renewable energy pecking order. A prize imposes *less* specificity than a contract and therefore forecloses fewer possibilities. Foreclosing as few options as possible is important, as some unforeseen technology, method, or organization may be the best way forward. DoD is now considering, for example, the use of smart grid technology and of distributed local energy generation, two energy models that have emerged not because of a rigorous and regimented development process, but because markets seem to have identified their potential.

DoD is also an unusually suitable entity to engage in some of the groundbreaking research that is needed to combat climate change. The most innovative institution in the history of humankind so far has arguably been Bell Labs, whose researchers have won (among many other awards) thirteen Nobel Prizes in Physics.¹³ In my mind, second place belongs to DoD itself, which can boast of having developed the internet, Global Positioning System (GPS) technology, and mobile nuclear power generation technology that can be safely contained on a submarine.¹⁴ Why has DoD been able to approach Bell Labs in success? Because few entities have ever had both the resources and the freedom to experiment that these two entities have had.

Finally, the third case study of MEC green behavior may be the most important of all—fostering human interactions so as to maximize the potential of collaborative creativity. Physical proximity and frequency of human interaction is one of the keys to creativity. It is why so much creativity occurs in *clusters*, whether that would be a lab, a space, or even a city or region, like Silicon Valley.¹⁵ One of the most important and underappreciated lessons of the Bell Labs experiment is the impact of spatial arrangements on creativity. Bell Labs director Mervyn Kelly designed workspaces to maximize informal, chance interactions among different researchers. Researchers were intentionally made to walk long distances to restrooms and cafeterias, past other workspaces, so as to force them to encounter one another. A scientist on his way to

13. *Awards and Recognition*, BELL LABS, <https://www.bell-labs.com/our-people/recognition/> (last visited Apr. 2, 2017).

14. *History and Timeline: Where the Future Becomes Now*, DEFENSE ADVANCED RESEARCH PROJECTS AGENCY, <http://www.darpa.mil/about-us/darpa-history-and-timeline> (last visited Apr. 2, 2017).

15. See Ben Waber, Jennifer Magnolfi & Greg Lindsay, *Workspaces That Move People*, HARV. BUS. REV. (Oct. 2014), <https://hbr.org/2014/10/workspaces-that-move-people>.

lunch was intentionally made to walk down a long corridor which was filled with other researchers, making that scientist “a magnet rolling past iron filings.”¹⁶ Also, researchers were not separated by specialty or function as research universities are, but made to interact and share space with those not in their specialty area.¹⁷ Basic scientists were forced to interact with applied scientists, theoreticians with experimentalists, and physicists with chemists.¹⁸ The conditions at Bell Labs were such that knowledge beget more knowledge. Bell Labs developed a huge and advanced stock of human capital so quickly because it was effective in *growing* it.

The MEC certainly has the potential to advance environmental goals because of its sheer size. Economies of scale are extremely important for energy providers, and the ability of the MEC to support renewable energy sources by buying a lot of it is vitally important to fledgling industries. But it is better still for the MEC, with its privileged position, to be generating something even more valuable: knowledge. Research and development and the resultant knowledge created, being public goods, are typically and dramatically undersupplied. The most useful thing that the MEC can do to advance environmental objectives is not necessarily to do the job itself (although it is capable) but to help generate the knowledge needed to do the job, and the many other currently unforeseeable tasks ahead, as the problem of climate change comes to a head.

16. JON GERTNER, *THE IDEA FACTORY: BELL LABS AND THE GREAT AGE OF AMERICAN INNOVATION* 77 (2012).

17. *Id.* at 79.

18. *Id.*

AGENCY BEHAVIOR AND DISCRETION ON REMAND

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I. INTRODUCTION

The concept of discretion pervades both administrative law and the on-the-ground work of administrative agencies. Despite the prevailing focus of administrative law on judicial review of agency discretion,¹ scholars are increasingly asking what we can learn about agency discretion in the absence of judicial review.² Indeed, such work prompts a reexamination of administrative law and our assumptions about agencies’ legitimacy.

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1. E.g., M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383, 1413 (2004) (“The dominant narrative of modern administrative law casts judges as key players who help tame, and thereby legitimate, the exercise of administrative power.”).

2. This *Environmental Law Without Courts* Symposium provides a much-needed variety of perspectives on precisely this issue. For other works engaging the topic, see, e.g., David L. Markell & Robert L. Glicksman, *Dynamic Governance in Theory and Application, Part I*, 58 ARIZ. L. REV. 563 (2016); Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313 (2013); Sidney A. Shapiro & Ronald F. Wright, *The Future of the Administrative Presidency: Turning Administrative Law Inside-Out*, 65 U. MIAMI L. REV. 577 (2011). Other scholars have explored agency aversion to the existence of discretion, which may increase the time and expense of pre-decisional procedures. See J.B. Ruhl & Kyle Robisch, *Agencies Running from Discretion*, 58 WM. & MARY L. REV. 97 (2016).

When a court invalidates an agency action, the agency's response on remand is often left open to the agency's discretion. That is, agencies frequently have significant latitude in whether, how, and when (if ever) to remedy the initial flaw. In the absence of a court's retaining jurisdiction or issuing a mandamus,³ the agency action must fit back into a long list of agency priorities, and may also be the victim of new presidential policies or changes in funding. Although a subsequent final agency action will likely be subject to review, our focus here is on the "in-between": agency behavior following remand.⁴

Compare the following examples. In the 2015 decision *Michigan v. EPA*, the Supreme Court held that U.S. Environmental Protection Agency (EPA) had improperly interpreted language in the Clean Air Act (CAA) to preclude the agency from considering costs in determining whether it was "appropriate and necessary" to regulate hazardous air emissions from power plants.⁵ With this holding in place, the D.C. Circuit considered the matter of disposition on remand: should the rule be remanded with or without vacatur? In an unusual twist, most of the electric utilities that had challenged the rule asked the court to remand without vacatur, because they had already made investments in pollution control equipment for which they were obtaining cost recovery.⁶ On remand—indeed without vacatur⁷—EPA quickly reissued the rule in early 2016, relying on the already-existing record, which included significant cost/benefit data assembled following the decision to regulate.⁸ EPA published the new rule just before the anticipated cut-off date

3. *Cf. Solenex LLC v. Jewell*, 156 F. Supp. 3d 83, 85 (D.D.C. 2015) (finding that the Bureau of Land Management (BLM) had engaged in unreasonable delay for purposes of 5 U.S.C. § 706(1) (2012), in failing to rule on a request to renew a natural gas exploration permit for 29 years, and ordering the agency within three weeks "to submit, and to stick to, an accelerated and fixed schedule" for doing so).

4. During this Symposium's discussion, Professor Mark Seidenfeld noted that our topic *requires* judicial review, which seems contrary to the Symposium's focus on agency action in the absence of judicial review. He is correct, of course, that the predicate of our topic is judicial review. Still, we see parallels between agency discretion on remand and agency discretion in the absence of review.

5. 135 S. Ct. 2699 (2015).

6. Oral Argument at 36:12 to 36:58, *White Stallion Energy Ctr. v. EPA*, 2015 WL 11051103, No. 12-1100 (D.C. Cir. Dec. 15, 2015).

7. *White Stallion Energy Ctr. v. EPA*, No 12-1100, 2015 WL 11051103 (D.C. Cir. 2015).

8. Much of this data is summarized in Justice Kagan's dissenting opinion. *Michigan v. EPA*, 135 S. Ct. at 2719–22 (Kagan, J., dissenting). *See also* Supplemental Finding That It Is Appropriate and Necessary To Regulate Hazardous Air Pollutants From Coal- and Oil-Fired Electric Utility Steam Generating Units, 81 Fed. Reg. 24,420 (Apr. 25, 2016) (to be codified at 40 C.F.R. pt. 63).

for the Congressional Review Act,⁹ in the final year of President Obama's second term.

That quick response stands in contrast to stories like that of EPA's years-long failure to address an interest group's petition to ban the pesticide chlorpyrifos. The saga began with the 2000 petition, and by 2007, the interest group filed a mandamus action against EPA to force a response to the petition.¹⁰ The court refused to grant relief, noting that EPA had a "concrete timeline" for issuing a final response by February 2014.¹¹ When EPA failed to issue a final response to the administrative petition in February 2014 as promised, the interest group filed a renewed petition for a writ of mandamus in September 2014. While that petition was pending, EPA issued a preliminary final denial of the administrative petition.¹² Thereafter, EPA continued to backtrack on its deadlines for itself, moving them from summer 2015 to April 2016 and beyond, until a court ultimately ordered EPA to issue its final decision by March 2017.¹³ At the end of that month, EPA finally issued a decision denying the petition to ban the pesticide under the Food, Drug and Cosmetic Act and the Federal Insecticide, Fungicide, and Rodenticide Act.¹⁴ Perhaps notably, this story spans several presidential administrations, including the first few months of President Trump's term, which began in January 2017.¹⁵

What is the extent of agency discretion following a remand, and how do agencies use that discretion? There are likely many

9. The Congressional Review Act, 5 U.S.C. §§ 801–808 (2012), though rarely invoked until 2017, can create delays for or block administrative regulations—particularly in conjunction with a new presidential term. See Timothy Noah, *Obama Rushes Out Rules to Guarantee Legacy*, POLITICO (May 18, 2016), <http://www.politico.com/story/2016/05/obama-rushes-out-rules-to-guarantee-legacy-223301> (describing interplay with presidential changes). More generally, the Act may induce strategic behavior by agencies. See Note, *OIRA Avoidance*, 124 HARV. L. REV. 994, 1005 (2011).

10. *In re Pesticide Action Network N. Am.*, 532 Fed. Appx. 649 (9th Cir. 2013).

11. *Id.* at 651.

12. Chlorpyrifos Registration Review; Revised Human Health Risk Assessment; Notice of Availability, 80 Fed. Reg. 1909 (Jan. 14, 2015).

13. *In re Pesticide Action Network*, 840 F.3d 1014 (9th Cir. 2016); *In re Pesticide Action Network*, 798 F.3d 809 (9th Cir. 2015).

14. Env'tl. Prot. Agency, Chlorpyrifos; Order Denying P ANNA and NRDC's Petition to Revoke Tolerances, EPA-HQ-OPP-2007-1005; FRL-9960-77 (Mar. 29, 2017).

15. Other examples, such as that of EPA's actions involving greenhouse gas emissions from new motor vehicles following the decision in *Massachusetts v. EPA*, 549 U.S. 497 (2007), are similarly rich. Compare Regulating Greenhouse Gas Emissions Under the Clean Air Act, 73 Fed. Reg. 44,654 (July 30, 2008) (Bush Administration) (providing reasons not to regulate greenhouse gas emissions under the CAA following *Massachusetts v. EPA* remand), with Endangerment and Cause or Contribute Findings for Greenhouse Gases Under Section 202(a) of the Clean Air Act, 74 Fed. Reg. 66,496 (Dec. 15, 2009) (Obama Administration) (finding greenhouse gases cause or contribute to endangerment of public health and welfare pursuant to CAA). See generally Emily Hammond Meazell, *Deference and Dialogue in Administrative Law*, 111 COLUM. L. REV. 1722 (2011) (chronicling other examples of long agency delays following remand) [hereinafter Hammond, *Dialogue*].

variables relevant to those questions. In this Essay, we sketch the interplay of four variables in order to form some preliminary hypotheses and lay a foundation for future empirical work. First, there is the question of the judicial remedy: whether a decision is remanded with or without vacatur, whether there is an injunction, and what the scope of the remedy is, all shape how an agency might behave. Second is the matter of time—both how much freedom the agency has in crafting a timeline, and the actual amount of time the agency takes following the remand to reach initial, intermediate, and final responsive agency actions (if any). Third is the valence of the agency action, that is, whether it is more, or less, aligned with the interests of the group winning the remand and with the then-current presidential administration. Finally, we consider the timing of the presidential administration, paying particular attention to changes that occur or are anticipated to occur over the timeframe at issue.¹⁶

We suspect that, barring a specific and enforceable judicial directive, agencies on remand have almost as much discretion as they would in the first instance. Moreover, we hypothesize that whether agencies stall or act with haste is at least somewhat dependent on the alignment of the agency's policy position with the incumbent President and any anticipated uncertainty regarding a future President. Of course, the vigilance of the original litigants, budgetary constraints, newly created statutory deadlines, and a variety of other factors will influence what happens on remand. But for present purposes, we hope that this initial exploration will yield a useful set of testable hypotheses that can inform more detailed future work.

This Essay proceeds as follows. In Part I's background section below, we briefly describe the nature of judicial review before elaborating our four variables. Next, in Part II we present three case studies to illustrate how our variables interact. Following this exercise, in Part III we propose a set of hypotheses for future empirical work. We conclude with some observations about what this initial look says about agency behavior, discretion, and ultimately, legitimacy.

16. We acknowledge, and concur with, Professor David L. Markell's Comment on this Essay, which emphasizes as well the importance of internal drivers of discretionary agency actions. David L. Markell, *Agency Motivations in Exercising Discretion on Remand*, 32 J. OF LAND USE & ENVTL. L. 513 (2017).

II. BACKGROUND: AGENCY DISCRETION, JUDICIAL REVIEW, AND THE FOUR VARIABLES

As noted above, we focus on four variables that may hold predictive value as to agencies' exercise of discretion following judicial remand: the nature of the remedy; the timeline; the valence of the decision; and the presidential administration. To give those variables context, a brief review of some of the principles of judicial review—and their interplay with agency discretion—may be helpful.

Agencies regularly exercise discretion in implementing delegated statutory authority. Indeed, many of their statutory mandates are broadly worded, requiring regulation “in the public interest” or for “just and reasonable” purposes.¹⁷ Judicial review of the exercise of that discretion tends to be deferential.¹⁸ Sometimes, however, judicial review of discretionary agency decisionmaking is not available at all. For example, the Administrative Procedure Act (APA) exempts certain actions from review,¹⁹ and establishes reviewability requirements like finality.²⁰ The Constitution limits reviewability as well, most often through the standing requirement.²¹ And of course, the vast majority of agency behaviors are never challenged in court, whether because they are too insubstantial or because

17. See *Whitman v. Am. Trucking Ass'n*, 531 U.S. 457, 473–76 (2001) (providing further examples).

18. Too deferential, some would say—at least in certain contexts. See, e.g., Emily Hammond Meazell, *Super Deference, the Science Obsession, and Judicial Review as Translation of Agency Science*, 109 MICH. L. REV. 733 (2011); Stephen Breyer, *Judicial Review of Questions of Law and Policy*, 38 ADMIN. L. REV. 363, 372–77 (1986) (taking issue with excessive deference to agency statutory interpretations). Review of discretionary actions should be distinguished from review of nondiscretionary actions, the latter of which are afforded far less judicial deference. E.g., *Norton v. S. Utah Wilderness All.*, 542 U.S. 55, 64 (2004) (citing Attorney General's Manual on the Administrative Procedure Act (APA) as supporting conclusion that courts are empowered “only to compel an agency ‘to perform a ministerial or non-discretionary act,’ or ‘to take action upon a matter, without directing *how* it shall act”).

19. See 5 U.S.C. § 701(a) (2012) (precluding review of actions made unreviewable by statute or committed to agency discretion by law). These exemptions are interpreted narrowly. *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402, 410 (1971) (quoting S. REP. NO. 79-752, at 26 (1945)) (concluding that agency discretion exemption is confined to “those rare instances where ‘statutes are drawn in such broad terms that in a given case there is no law to apply’”).

20. 5 U.S.C. § 704 (2012) (making final agency actions reviewable); *Darby v. Cisneros*, 509 U.S. 137 (1993) (interpreting scope of § 704's exhaustion provision); cf. *Abbott Labs. v. Gardner*, 387 U.S. 136, 140 (1967) (recognizing presumption of reviewability); see also *FTC v. Standard Oil Co.*, 449 U.S. 232, 249 n.5 (1980) (concluding that agency action was reviewable unless the agency was able, by “clear and convincing evidence,” to “overcome the strong presumption against a determination that its action is ‘committed to agency discretion’ under 5 U.S.C. § 701(a)(2)”).

21. E.g., *Lujan v. Defs. of Wildlife*, 504 U.S. 555 (1992).

would-be challengers must pick and choose how to spend limited resources.²²

Many of the reviewability limitations are structured around separation-of-powers values and reflect judicial hesitation at dictating agency resource allocation or interfering with agencies' priority-setting decisions.²³ Left without the structural check of judicial review, however, agencies' legitimacy²⁴ must be left to some other external²⁵ or internal²⁶ oversight. External oversight might include congressional actions like hearings, budgetary decisions, and even amendments to statutory mandates. It is our experience that major rulemakings and related judicial decisions—like those culminating in the Clean Water Rule that is the subject of our first case study below—attract significant legislative attention but nevertheless are difficult for Congress to police.²⁷ For both major rules and

22. Hammond & Markell, *supra* note 2, at 314–15.

23. *E.g.*, Heckler v. Chaney, 470 U.S. 821, 831 (1985) (referring to need for agency to engage in “a complicated balancing of a number of factors which are peculiarly within its expertise,” including “whether agency resources are best spent on this violation”); Allen v. Wright, 468 U.S. 737, 752 (1984) (explaining that “the law of Art. III standing is built on a single basic idea—the idea of separation of powers”). *See also* Norton v. S. Utah Wilderness All., 542 U.S. 55, 66 (2004) (describing purpose “to protect agencies from undue judicial interference with their lawful discretion, and to avoid judicial entanglement in abstract policy disagreements which courts lack both expertise and information to resolve”). For criticism of Norton, see Robert L. Glicksman, *Securing Judicial Review of Agency Inaction (and Action) in the Wake of Norton v. Southern Utah Wilderness Alliance*, in STRATEGIES FOR ENVIRONMENTAL SUCCESS IN AN UNCERTAIN JUDICIAL CLIMATE 163 (M. Wolf ed., ELI Press 2005); *see also* Bennett v. Spear, 520 U.S. 154, 177–78 (1997) (noting that final agency action “must mark the ‘consummation’ of the agency’s decisionmaking process”); Franklin v. Massachusetts, 505 U.S. 788, 796–97 (1992) (explaining that the “core question” in assessing whether an agency action is final “is whether the agency has completed its decisionmaking process, and whether the result of that process is one that will directly affect the parties”).

24. Legitimacy may refer to constitutional, statutory, democratic, or procedural legitimacy. *See* Hammond & Markell, *supra* note 2, at 316–17 (collecting varieties). For purposes of our project, compliance with a remand order most strongly reinforces statutory and procedural legitimacy.

25. External checks include congressional and presidential oversight, as well as oversight such as may come from the media, interest groups, or the public. *See, e.g.*, Mariano-Florentino Cuéllar, *Rethinking Regulatory Democracy*, 57 ADMIN. L. REV. 411 (2005) (participation during rulemaking); Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245 (2001) (describing presidential control); Matthew D. McCubbins, Roger G. Noll, & Barry R. Weingast, *Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies*, 75 VA. L. REV. 431, 434 (1989) (fire-alarm model of congressional oversight); Mark Seidenfeld, *A Civic Republican Justification for the Bureaucratic State*, 105 HARV. L. REV. 1511 (1992) (civic republicanism); Miriam Seifter, *Second-Order Participation in Administrative Law*, 63 UCLA L. REV. 1300 (2016) (interest groups).

26. The public administration literature offers perspectives on internal oversight. *See* Shapiro & Wright, *supra* note 2, at 597–603 (collecting sources).

27. *See* Executive Overreach in Domestic Affairs Part II—IRS Abuse, Welfare Reform, and Other Issues, Before the H. Judiciary Comm., Executive Overreach Task Force, 114th CONG. (Apr. 19, 2016), <https://judiciary.house.gov/hearing/executive-overreach-domestic-affairs-part-ii-irs-abuse-welfare-reform-issues/> (considering Clean Water Rule, Clean Power Plan, and other executive actions). Efforts to amend the CAA to strip EPA’s authority to regulate greenhouse gases have failed as of this writing, although it seems possible

run-of-the-mill agency actions, the President seems to have far more impact as a matter of external oversight.²⁸ The role of the media, public engagement, and other democratic and participatory forms of oversight is widely acknowledged in the literature even while its effectiveness is a matter of debate.²⁹ Internal means of agency self-policing are somewhat elusive in the legal literature, having attracted more attention in the field of public administration.³⁰ Still, agency flexibility, agency culture, entrenchment, and design all impact how an agency behaves outside the limelight of judicial review.

These sources of oversight are important not just in the absence of judicial review, but on remand. Suppose an agency action *is* reviewed, and remanded to the agency due to some flaw in the action's procedure or substance. Under many circumstances, the remanded action becomes simply one of many possible priorities that must compete for scarce resources. In other words, as a practical matter the remanded action is akin to general matters of agency discretion that are not (or are not yet) reviewable. However, the procedural posture of the remanded action creates a record that helps illuminate agency behavior more generally. Below, we consider some of the factors bearing on how remanded actions might fare once they are returned to the general mix of agency priorities and discretion. In so doing, we build a universe of remands from which empirical work could be developed, delineate the contours of potential variables, and note tentative hypotheses with respect to those variables.

A. Judicial Remedy

The judicial remedy most clearly drives the amount of discretion an agency has on remand and delineates the set of remands for

Congress may have the votes and presidential support necessary to do that in the Trump Administration.

28. This expectation is constitutionally grounded. See U.S. CONST. art II, § 3 (vesting in the President the duty to "take Care that the Laws be faithfully executed"). It is also descriptively apt, see Ming Hsu Chen, *Administrator-in-Chief* (forthcoming 2017) (describing administrative mechanisms applied by President Obama regarding immigration matters), and judicially accepted, see *Sierra Club v. Costle*, 657 F.2d 298, 405 (D.C. Cir. 1981) ("The court recognizes the basic need of the President and his White House staff to monitor the consistency of executive agency regulations with Administration policy. He and his White House advisers surely must be briefed fully and frequently about rules in the making, and their contributions to policymaking considered.").

29. *E.g.*, Edward Rubin, *The Myth of Accountability and the Anti-Administrative Impulse*, 103 MICH. L. REV. 2073, 2076–98 (2005) (arguing electoral accountability is a myth that cannot legitimize the administrative state); Seifter, *supra* note 25, at 1333–52 (describing myth of representativeness of public interest groups).

30. Shapiro & Wright, *supra* note 2, at 595–603 (making this point and providing overview of public administration literature).

which an empirical project would be relevant. The APA provides a variety of reasons for which a court might set aside an agency action: procedural defects, arbitrary decisionmaking or actions unsupported by substantial evidence, failure to conform to statute, and unconstitutional agency action.³¹ Depending on the type and seriousness of the flaw, the court might vacate the action and remand,³² remand without vacatur,³³ issue a mandamus³⁴ or injunction,³⁵ and/or retain jurisdiction until some flaw is remedied.³⁶

Of these, mandatory or injunctive relief coupled with retaining jurisdiction would most confine agency discretion. The action's priority for the agency and the external check of judicial oversight are both retained, so it is unlikely that cases involving such relief would be appropriate to include in an empirical study focused on discretion. Even so, injunctions can take many forms, ranging from a complete prohibition to an authorization if the agency adheres to conditions specified in the injunction.³⁷ A remand order may enjoin

31. 5 U.S.C. § 706(2) (2012).

32. Some scholars insist this remedy is the only one consistent with the text of the APA, which provides that a court "shall set aside" agency action having the flaws listed in § 702. See Hammond, *Dialogue*, *supra* note 15, at 1738 (collecting sources).

33. Most scholars and courts view this remedy as within judicial discretion, notwithstanding the contrary text of the APA noted above. *E.g.*, Ronald M. Levin, "Vacation" at Sea: *Judicial Remedies and Equitable Discretion in Administrative Law*, 53 DUKE L.J. 291 (2003). Furthermore, if one views the hard look doctrine as too hard, this remedy offers a means of tempering judicial power in the substantive standard. *Id.* at 361; Daniel B. Rodriguez, *Of Gift Horses and Great Expectations: Remands Without Vacatur in Administrative Law*, 36 ARIZ. ST. L.J. 599, 617–18 (2004) (noting that remanding without vacatur is designed to give the agency the chance to improve its reasoning, maintain the stability of a regulatory program pending an agency's response to a judicial remand, and protect the "reliance interests" of those affected by regulation.); Sidney A. Shapiro & Richard W. Murphy, *Arbitrariness Review Made Reasonable: Structural and Conceptual Reform of the "Hard Look"*, 92 NOTRE DAME L. REV. 331, 369–71 (2016) (justifying remand without vacatur as a sensible way of allowing a court to conclude that, notwithstanding curable flaws, a rule is not arbitrary if the agency adopts post hoc fixes for the defects). According to the D.C. Circuit, "[t]he decision whether to vacate depends on 'the seriousness of the order's deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed.'" *Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm'n*, 988 F.2d 146, 150 (D.C. Cir. 1993) (quoting *Int'l Union of United Mine Workers v. Fed. Mine Safety & Health Admin.*, 920 F.2d 960, 966–67 (D.C. Cir. 1990)).

34. These are rare. See *Telecomms. Res. & Action Control Ctr. v. FCC (TRAC)*, 750 F.2d 70, 79 (D.C. Cir. 1984) (stating that agency's delay must be "egregious" in order to justify mandamus).

35. *E.g.*, *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 194–95 (1978) (affirming court of appeals' grant of injunctive relief in landmark Endangered Species Act case).

36. *TRAC*, 750 F.2d at 80 (concluding agency delay was serious enough to justify retaining jurisdiction). Settlement is also a possibility following judicial review, but we do not address it here. *Cf.* Hammond, *Dialogue*, *supra* note 15, at 1740 & n.83 (describing empirical evidence suggesting "remanded actions settle 40% to 50% of the time").

37. See, *e.g.*, *NRDC v. Evans*, 364 F. Supp. 2d 1083, 1139–43 (N.D. Cal. 2003) (crafting "carefully tailored" injunction restricting use of low-frequency sonar in areas rich in marine life, but allowing its use for military testing and training under certain conditions). For a typology of different kinds of injunctions, see Daniel A. Farber, *Equitable Discretion*, *Legal*

some aspects of an agency's decision but allow others to proceed.³⁸ Even if a court issues a conditional or partial injunction, the specificity with which it describes the conditions can vary. The more specifically the court describes the nature of the agency's required response, the less flexibility the agency has in how it chooses to respond (and perhaps in whether it responds at all). A generally worded injunction to halt the adverse effects of an agency's action may afford it great leeway in determining the best method for doing so.³⁹ Injunctions also can vary in their geographic scope, ranging from site-specific⁴⁰ to nationwide⁴¹ in application. Were we to construct a dataset that eliminated remands that retained jurisdiction and mandated particular action, therefore, we would need to acknowledge that such a dataset could be under-inclusive.

By contrast, in the context of rulemaking actions, vacating a rule in its entirety arguably gives the agency the most discretion on remand because it must start a rulemaking anew if it wishes to continue to pursue the issue.⁴² Barring some other mandatory oversight like a presidential or congressional directive, the agency might

Duties, and Environmental Injunctions, 45 U. PITT. L. REV. 513, 539–41 (1984) (discussing enforcement, compliance, ancillary, and freestanding injunctions).

38. See, e.g., *Pit River Tribe v. U.S. Forest Serv.*, 615 F.3d 1069, 1080–82 (9th Cir. 2010) (upholding district court's remand order requiring the Bureau of Land Management to reconsider its decision to extend term of a geothermal lease, but not requiring it to invalidate the existing lease or to hold a new bidding process); *Westlands Water Dist. v. U.S. Dep't of Interior*, 376 F.3d 853, 877 (9th Cir. 2004) (affirming district court's decision to allow portions of record of decision to be implemented while invalidating others).

39. The difference between an injunction that requires a particular end result and one that dictates the means of achieving it is analogous to the well-known distinction between performance and design specification standards in environmental law. "A performance standard sets an emission limitation by reference to the pollution level that would be attained through the use of the best available technology, but does not actually mandate the use of any particular technology. In contrast, a design standard requires an actor to use a particular technology." Richard L. Revesz & Allison L. Westfall Kong, *Regulatory Change and Optimal Transition Relief*, 105 NW. U. L. REV. 1581, 1597 (2011); cf. Cary Coglianese, Jennifer Nash & Todd Olmstead, *Performance-Based Regulation: Prospects and Limitations in Health, Safety, and Environmental Protection*, 55 ADMIN. L. REV. 705, 713 (2003) (suggesting that "the two approaches can be better thought of as end points along a spectrum of regulatory approaches").

40. See, e.g., *Defs. of Wildlife v. Martin*, 454 F. Supp. 2d 1085, 1099 (E.D. Wash. 2006) (enjoining snowmobiling in national forest pending consultation under the Endangered Species Act).

41. See, e.g., *California ex rel. Lockyer v. U.S. Dep't of Agric.*, 575 F.3d 999, 1021 (9th Cir. 2009) (upholding nationwide injunction prohibiting Forest Service from violating regulatory restrictions on activities in roadless areas of the national forests as necessary to avoid degradation of those areas); *Nat'l Mining Ass'n v. U.S. Army Corps of Eng'rs*, 145 F.3d 1399, 1408–10 (D.C. Cir. 1998) (nationwide injunction against implementation of Clean Water Act regulation); *Sequoia Forestkeeper v. Tidwell*, 847 F. Supp. 2d 1244, 1253 (E.D. Cal. 2012) (nationwide injunction against implementation of Forest Service regulations concerning administrative appeals).

42. Hammond, *Dialogue*, *supra* note 15, at 1738.

simply move onto other issues. Thus, one way to construct a dataset would be to limit its contents to cases with this type of disposition.

Although that approach would be straightforward, it would miss the richness of detail provided by another common remedy: quite often, courts remand rules without vacating them. Evaluating agencies' exercises of their discretion in such circumstances requires a fact-intensive look at the reason for the remand and the relationship of the flaw to the action as a whole. Indeed, this point is true for nearly every case holding that an agency decision is flawed in some way, regardless of whether there is a vacatur. The Supreme Court has explained the judicial preference for not dictating agency responses on remand, at least in cases in which an agency decision is invalidated as arbitrary and capricious as a result of a flawed or missing explanation.⁴³ Failure to allow the agency to determine whether it can justify reaching the same result with a different or better explanation "erroneously deprive[s] the agency of its usual administrative avenue for explaining and reconciling the arguably contradictory rationales that sometimes appear in the course of lengthy and complex administrative decisions."⁴⁴ It is rare that it would be appropriate for a court to direct a specific result on remand, such as when the agency has delayed action and further delay would risk irreparable harm to litigants' or statutory interests.⁴⁵

As a straightforward illustration of the way discretion can be channeled in the wake of a judicial remand, consider again the example of *Michigan v. EPA*⁴⁶ mentioned in the Introduction.⁴⁷ According to the Supreme Court, the agency's flaw was refusing to consider the costs of regulating hazardous air emissions in its initial decision to regulate under the CAA.⁴⁸ Writing for the majority, Justice Scalia reasoned that the word "appropriate" in the relevant portion of the CAA did not permit the agency to refuse to consider costs.⁴⁹ As noted, the D.C. Circuit remanded the rule without vacating it.⁵⁰ Agencies do not always remedy flaws under

43. *Nat'l Ass'n of Home Builders v. Defs. of Wildlife*, 551 U.S. 644, 657–58 (2007).

44. *Id.* at 658.

45. *See, e.g., Middle Rio Grande Conservancy Dist. v. Norton*, 294 F.3d 1220, 1226 (10th Cir. 2002) (ordering agency to prepare EIS in face of lengthy delay and overwhelming evidence of significant environmental impacts); *cf. Nelson v. United States*, 64 F. Supp. 2d 1318, 1326 (N.D. Ga. 1999) (issuing mandatory injunction without remand in face of agency's "erroneous decision").

46. *Michigan v. EPA*, 135 S. Ct. 2699 (2015).

47. *Supra* text accompanying notes 5–9.

48. *Michigan*, 135 S. Ct. at 2711.

49. *Id.* ("The Agency must consider cost—including, most importantly, cost of compliance—before deciding whether regulation is appropriate and necessary.")

50. *Supra* note 7.

these circumstances as quickly as EPA did here,⁵¹ but note that EPA's discretion on remand was channeled: it was *required* to consider costs.⁵² Still, its decision *how* to consider costs was left open to the agency's discretion.⁵³ This short example illustrates how the black-and-white remedy and the reason for it interact to produce something less than full discretion on remand. For this reason, empirical work must consider both the easily⁵⁴ code-able remedy and the reasoning behind it. The latter, of course, is much more difficult to code;⁵⁵ conceiving of it as an ordinal variable may be a possible approach for ranking the amount of discretion available on remand.⁵⁶

One final point is important with respect to the remedy. As our case studies demonstrate, it is common that agency actions on a given issue will be challenged and remanded multiple times, in what one of us has called serial litigation.⁵⁷ It seems likely that the history of a court's and agency's interaction on a particular issue will flavor the nature of the dialogue between them and impact the remedy as well.⁵⁸ For grappling with this possibility empirically, we would want to document the facts of the serial litigation in our coding. Of

51. See, e.g., discussion *infra* Part II.B. (describing time variable).

52. This judicial approach has been dubbed "*Brand X* avoidance" for its impact on agencies' interpretive discretion on remand. Emily Hammond & Richard J. Pierce, Jr., *The Clean Power Plan: Testing the Limits of Administrative Law and the Electric Grid*, 7 GEO. WASH. J. ENERGY & ENV'T'L L. 1, 8 (2016). However, it is also a feature of the landscape any time a court rejects an agency interpretation at *Chevron* step one. For further details, see Emily Hammond et al., *Judicial Review of Statutory Issues Under the Chevron Doctrine, in A GUIDE TO JUDICIAL AND POLITICAL REVIEW OF FEDERAL AGENCIES* 93–100 (2015) (collecting examples).

53. *Michigan*, 135 S. Ct. at 2711 ("The Agency must consider cost—including, most importantly, cost of compliance—before deciding whether regulation is appropriate and necessary. . . . It will be up to the Agency to decide (as always, within the limits of reasonable interpretation) how to account for cost."). EPA also had a litigation history regarding its failure to regulate hazardous air pollutants from power plants, recounted in the lower court's decision. *White Stallion Energy Ctr. v. EPA*, 748 F.3d 1222, 1229–30 (D.C. Cir. 2014), *rev'd*, 135 S. Ct. 2699 (2015).

54. Usually. Sometimes it can be difficult to determine the nature of a court's remedy. But it is objectively verifiable and we would expect little variation among coders.

55. Coders would be required to read opinions, assess the nature of the reasoning, and translate that into a discrete coded value. Readers often interpret such reasoning differently, so we could expect a higher rate of disagreement among coders. The task is further complicated given that judicial review of major administrative actions does not often focus on a single issue; results and reasoning may be mixed. For an example of how such matters were handled for a study of the attitudinal model of judicial review, see Cass R. Sunstein et al., *Ideological Voting on Federal Courts of Appeals: A Preliminary Investigation*, 90 VA. L. REV. 301, 310 n.19–313 n.34 (2004) (describing coding methodology).

56. Ordinal variables can be ordered or ranked. For an example, see Deborah Jones Merritt & Barbara F. Reskin, *Sex, Race, and Credentials: The Truth About Affirmative Action in Law Faculty Hiring*, 97 COLUM. L. REV. 199, 212–13 (1997) (conceptualizing law schools' prestige as an ordinal variable).

57. Hammond, *Dialogue*, *supra* note 15, at 1723.

58. *Id.* at 1742–43.

interest, serial litigation may provide the best window into agency behavior on remand simply because the fact of later judicial review helps document what the agency actually did on remand. This point speaks to the need for greater transparency in matters of agency discretion, but it also suggests there may be selection effects in any comprehensive empirical analysis.⁵⁹

B. Timeline

The degree of discretion a judicial remand affords an agency is also affected by the amount of time the court gives the agency to fashion its response. A specific timetable for the agency's response constrains it in ways that an open-ended remand order does not. The absence of such a timetable affects not only when, but whether an agency will respond. The halting manner in which EPA responded to a petition to ban the pesticide discussed in the Introduction,⁶⁰ for example, reflects initial judicial accommodation of—but eventual frustration with—agency regulatory discretion with respect to timing.⁶¹

In building an empirical study, therefore, we would code whether the court provided a timetable, the length of that timetable, and the length of time to agency action. These variables would likely interact with the nature of the remedy, discussed above, in the following ways. First, a vacatur coupled with no timetable truly puts the issue back into the generalized mix of potential agency actions subject to priority-setting and resource-allocation decisions. The universe of potential actions on the issue, of course, would be confined by the reasoning of the opinion. For example, a judicial holding that an agency clearly lacks statutory authority to regulate a type of behavior closes the door to such regulation in the future. But a procedural flaw, flaw of reasoning, or unreasonable interpretation of an ambiguous statute leaves open the possibility of the agency reaching the same substantive result, or something very different from it, in the future. Moreover, we expect significant interaction with the presidential timeframe, as discussed in more detail below. With those major caveats, therefore, this combination maximizes discretion on remand.

59. Moreover, in such circumstances we are admittedly further away from the concept of agency behavior without courts.

60. See *supra* notes 10–15 and accompanying text.

61. One of us has distinguished between an agency's "regulatory discretion," which involves a decision whether to regulate, and its "legislative discretion," which affects how it chooses to regulate. See Sidney A. Shapiro & Robert L. Glicksman, *Congress, the Supreme Court, and the Quiet Revolution in Administrative Law*, 1988 DUKE L.J. 819, 822.

Second, a remand without vacatur, coupled with no timetable or a very long timetable, may have a similar result as a practical matter.⁶² Although the agency ought to remedy the flaw identified by the court, it might be able to “drag its feet” without consequence because the costs of monitoring and enforcing the judicial decision may be high for the winning party. Further, there is comparatively little benefit to an expeditious response to the remand order because the complained-of agency action remains in effect. For regulated entities, inertia favors compliance; for public interest groups, resources may be better spent elsewhere.⁶³ Thus, we predict that the lack of a timetable,⁶⁴ or a very long timetable, would increase the chance of the agency taking no further action on the matter, regardless of the flaw that generated the remand.⁶⁵

Of course, the ultimate time until an agency takes action is also dependent on the valence and presidential variables, to which we turn next.

62. For an example in which vague remand instructions afforded the BLM ample discretion in deciding when and how to respond to a finding that it had committed National Environmental Policy Act (NEPA) violations in its initial effort to amend its resource management plan to facilitate oil and gas leasing, see (in chronological order) *New Mexico ex rel. Richardson v. Bureau of Land Mgmt.*, 565 F.3d 683 (10th Cir. 2009) (affirming district court’s finding of a flaw and stating that further site-specific analysis was required); Notice of Availability of the Draft Tri-County Resource Management Plan and Draft Environmental Impact Statement for the Las Cruces District Office, New Mexico, 78 Fed. Reg. 21,965 (Apr. 12, 2013) (providing draft plan, and failing to mention Tenth Circuit decision); Notice of Intent to Prepare a Supplement to the Tri-County Draft Resource Management Plan and Environmental Impact Statement, New Mexico, 78 Fed. Reg. 76,582, 76,582 (Dec. 19, 2013) (explaining plan to prepare supplemental EIS); Bureau of Land Mgmt., Las Cruces Dist. Office, Newsletter 5, TriCounty RMP/EIS (Apr. 2014), http://www.blm.gov/style/medialib/blm/nm/field_offices/las_cruces/las_cruces_planning/tricounty_rmp.Par.87669.File.dat/Public_Newsletter_5.pdf (announcing delay). As of this writing, no plan has been issued, leaving the matter to the Trump Administration.

63. See, e.g., Hammond, *Dialogue*, *supra* note 15, at 1769–72 (recounting agency failure to act following remand without vacatur and without timetable).

64. Several commentators have insisted that a timetable is the best practice. See, e.g., Farber, *supra* note 37, at 127 (suggesting that a rule should be vacated after the timetable for responding to a remand without vacatur has expired); Hammond, *Dialogue*, *supra* note 15, at 1786–87 (suggesting that timetables are necessary to avoid constitutional concerns); Rodriguez, *supra* note 33, at 621 (“There is no clear incentive, save for a timetable that the court [rarely] establishes—for the agency to diligently redesign its decision and rationale Hence, the regulatory process bears costs while the process slowly unfolds.”).

65. In one case, for example, EPA delayed for fifteen years in reissuing regulations under the CAA that the D.C. Circuit remanded without vacatur without imposing a deadline for a response. *Env’tl. Def. v. EPA*, 489 F.3d 1320 (D.C. Cir. 2007) (upholding EPA regulations issued on remand).

C. Valence and Alignment of Policy Interests

Agency actions are regularly challenged by both regulated entities and public interest groups, often in the same proceeding.⁶⁶ With “valence” and “alignment” of policy interests, we want to capture the extent to which an agency’s policy inclination aligns with that of the party winning the remand and the presidential administration. For “valence” we might code whether the litigants’, presidential, and agency’s interests are *regulatory*,⁶⁷ meaning tending toward more or stricter regulations, or *deregulatory*, meaning tending toward fewer or laxer regulations.⁶⁸ For agreement, it would be necessary to code for eight potential combinations.⁶⁹ Notably, the “valence” determination is better suited to substantive outcomes than procedural ones. When remands are for procedural defects, further work would be needed to assign a valence to the parties’ procedural interests.

All else being equal, we predict that when an agency’s and president’s valence are out of alignment with that of the winning litigant, we could expect on remand inaction, delay, or exercises of discretion that are contrary to the court’s expressed interests.⁷⁰ When all valences align, however, we predict relatively expeditious exercises of discretion that reinforce the interest alignment. Complications may arise in making observations. For example, imagine that a winning litigant obtained a remand for an agency’s flawed support of a rule aimed at regulating toxics; here the litigant would have argued that the rule was not stringent enough. If on remand the agency adopts a slightly more restrictive rule, it would be coded

66. See, e.g., *Utility Air Reg. Group v. EPA*, 134 S. Ct. 2427 (2014) (various challenges to EPA’s regulation of greenhouse gas emissions from stationary sources under the CAA); *In re Polar Bear Endangered Species Act Listing and § 4(d) Rule Litig.*, 794 F. Supp. 2d 65 (D.D.C. 2011), *aff’d*, 709 F.3d 1 (D.C. Cir. 2013) (various challenges to agency’s decision to list polar bears as threatened but not endangered species).

67. We use the term “regulatory” broadly to include anything that qualifies as “agency action” under the APA, 5 U.S.C. § 551(13) (2012), not just regulations adopted after rulemaking proceedings.

68. Admittedly, this could be a challenging task in cases with multiple challengers with opposing interests, and judicial holdings that reach mixed results. Specifying the action on remand as precisely as possible, and tailoring that to the particular remand reasoning and advocate, would be critical.

69. These are full alignment/regulatory; full alignment/deregulatory; agency/president alignment/regulatory; agency/president alignment/deregulatory; agency/litigant alignment/regulatory; agency/litigant alignment deregulatory; litigant/president alignment/regulatory; and litigant/president alignment/deregulatory.

70. Of course, this measurement will always be more complicated in mixed judicial outcomes. Moreover, general judicial attention to this concern may alleviate the possibility of foot-dragging. See, e.g., *EME Homer City Generation, L.P. v. EPA*, 795 F.3d 118, 127 (D.C. Cir. 2015) (urging agency to act promptly on remand); *North Carolina v. EPA*, 550 F.3d 1176, 1178 (D.C. Cir. 2008) (emphasizing need for agency to act to remedy flaw on remand).

as regulatory in nature. But if the agency's (and president's) usual valences were deregulatory, one would expect that the agency chose the least restrictive of increased regulatory options within the zone of reasonableness. A subsequent legal challenge might help tease the matter out, and enable a coder to characterize the remand action as deregulatory. But coding this way would require significant judgment and could introduce errors into the dataset.

Further, the agency's or presidential valence may well change over the course of the time period under observation. Among other things, our final variable is meant to capture such circumstances.

D. Presidential Administration Over Time

Normatively, presidential control of agency behavior has both proponents and adversaries in the literature.⁷¹ As a positive matter, however, presidential control of agencies is well documented.⁷²

71. See, e.g., Daniel A. Farber & Anne Joseph O'Connell, *The Lost World of Administrative Law*, 92 TEX. L. REV. 1137, 1162–67 (2014) (describing drift in OIRA's role away from presidential mandates in executive orders); Kagan, *supra* note 25, at 2372 (describing and arguing for enhanced judicial deference); Thomas O. McGarity, *EPA at Helm's Deep: Surviving the Fourth Attack on Environmental Law*, 24 FORDHAM ENVTL. L. REV. 205 (2012–2013) (criticizing); Emily Hammond Meazell, *Presidential Control, Expertise, and the Deference Dilemma*, 61 DUKE L.J. 1763, 1800–02 (2012) (criticizing); Cass Sunstein, *The Office of Information and Regulatory Affairs: Myths and Realities*, 126 HARV. L. REV. 1838, 1840–41 (2013) (supporting); Kathryn A. Watts, *Proposing a Place for Politics in Arbitrary and Capricious Review*, 119 YALE L.J. 2 (2009) (arguing for enhanced consideration of presidential control during judicial review). See also Cynthia Farina et al., *Knowledge in the People: Rethinking "Value" in Public Rulemaking Participation*, 47 WAKE FOREST L. REV. 1185, 1225–26 (2012) (stating that, in theory, centralized executive review can help "transcend[] disciplinary boundaries by involving different kinds of experts").

72. E.g., Letter from Cass R. Sunstein, Admin., Office of Information and Regulatory Affairs, to Lisa P. Jackson, Admin., EPA, (Sept. 2, 2011) (on file with authors) (returning rule on 2008 ozone primary and secondary ambient air quality standards); Nina A. Mendelson, *Disclosing "Political" Oversight of Agency Decision Making*, 108 MICH. L. REV. 1127 (2010) (documenting impact of Office of Information and Regulatory Affairs (OIRA) regulatory review and arguing for greater transparency). The history of the Forest Service's land use planning rule in the early twenty-first century provides a strong example of a course of agency action on remand that is strewn with policy reversals driven by the politics and policies of multiple administrations. See (in chronological order) National Forest System Land and Resource Management Planning, 44 Fed. Reg. 53,928 (Sept. 17, 1979) (initial set of plans); National Forest System Land and Resource Management Planning, 47 Fed. Reg. 43,026 (Sept. 30, 1982) (revisions); National Forest System Land and Resource Management Planning, 65 Fed. Reg. 67,514 (Nov. 9, 2000) (overhaul by outgoing Clinton administration); National Forest System Land and Resource Management Planning; Extension of Compliance Deadline, 66 Fed. Reg. 27,552 (May 17, 2001) (delay with incoming George W. Bush Administration); National Forest System Land Management Planning, 70 Fed. Reg. 1023 (Jan. 5, 2005) (new rule under George W. Bush Administration); *Citizens for Better Forestry v. U.S. Dep't of Agric.*, 481 F. Supp. 2d 1059, 1100–01 (N.D. Cal. 2007) (invalidating Bush rule); National Forest System Land Management Planning, 73 Fed. Reg. 21,468 (Apr. 21, 2008) (essentially reviving 2005 rule); *Citizens for Better Forestry v. U.S. Dep't of Agric.*, 632 F. Supp. 2d 968 (N.D. Cal. 2009) (rejecting 2008 rule); National Forest System Land and Resource Management Planning, 74 Fed. Reg. 67,059 (Dec. 18, 2009) (under Obama Administration's first term, reviving 1982 rule under then-effective 2000 rule); National Forest

And even in the absence of direct presidential control, presidents set policy agendas through their constitutional powers.⁷³ The valence variables above are meant to capture policy preferences. By examining the presidential administration over time, we can test the prediction that agencies behave strategically in anticipation of administrative entrenchment or change. In the *Michigan v. EPA* case discussed in the Introduction, for example, the upcoming presidential election and accompanying Congressional Review Act deadline may have played a role in spurring EPA to remedy the cost flaw quickly, notwithstanding the lack of valence alignment between the agency and president on the one hand, and the winning litigants on the other. Even though the remand in that case was without vacatur, by issuing a rule quickly EPA could make it more difficult for a future (and then-uncertain) presidential administration to undo the rule.⁷⁴ By contrast, when a remand comes at the very beginning of a President's second term, the agency has less incentive to act quickly, especially when its and the administration's valences do not align with the winning litigants. Of course, presidential administration interacts with the other variables as well. For example, the less a judicial remand order micromanages the agency's response, the greater the room is for policy differences across administrations to affect the nature of the agency's response.

We can roughly account for these variations with several observations. First, we can identify the political party of the President at the time of the rule's finalization as well as at the time of remand. Relatedly, we can identify whether the presidential administration

System Land Management Planning, 77 Fed. Reg. 21,162 (Apr. 2012) (revamped rule at end of Obama's first term).

73. *E.g.*, U.S. CONST. art. II, § 1, cl. 1 (vesting clause); *id.* § 2, cl. 2 (appointments clause); see also *Sierra Club v. Costle*, 657 F.2d 298, 405–06 (D.C. Cir. 1981):

The court recognizes the basic need of the President and his White House staff to monitor the consistency of executive agency regulations with Administration policy. . . .

. . . Our form of government simply could not function effectively or rationally if key executive policymakers were isolated from each other and from the Chief Executive. Single mission agencies do not always have the answers to complex regulatory problems. An overworked administrator exposed on a 24-hour basis to a dedicated but zealous staff needs to know the arguments and ideas of policymakers in other agencies as well as in the White House.

74. This hypothesis is consistent with the phenomenon of midnight regulations, a term that "describes the dramatic spike of new regulations promulgated at the end of presidential terms, especially during transitions to an administration of the opposite party." Jerry Brito & Veronique de Rugy, *Midnight Regulations and Regulatory Review*, 61 ADMIN. L. REV. 163, 163–64 (2009). For an empirical survey of the issuance of midnight regulations at the end of the George H.W. Bush and Clinton Administrations, see Jason M. Loring & Liam R. Roth, *After Midnight: The Durability of the "Midnight" Regulations Passed by the Two Previous Outgoing Administrations*, 40 WAKE FOREST L. REV. 1441 (2005).

changed hands within that timeframe. Third, we can code the time remaining in a presidential term following a remand. Although a rough measure, we can also tie these observations to the regulatory or deregulatory valence of the presidential administration to enable comparisons between the explanatory power of variables coded here as opposed to the valence variables coded under Section C above.

III. CASE STUDIES: AGENCY BEHAVIOR ON REMAND

As is likely evident from our discussion of the variables related to agency behavior on remand, their interplay can become quite complicated. In this Part, we provide three case studies.⁷⁵ The case studies either help reinforce our predictions above, or suggest areas where one might find counter-intuitive results. Ultimately, this work sheds light on both the pragmatic workability of empirical analyses of agency behavior on remand, and on further research needs. In and of themselves, however, these case studies illuminate the richness of agency discretion and behavior on remand.

The three case studies consist of the following. First, the Clean Water Act and “waters of the United States” saga reveals how remand orders can leave significant substantive and procedural discretion to agencies, permitting them to maximize their flexibility over the course of multiple presidential administrations. Second, a story involving the Wild and Scenic Rivers Act and Yosemite National Park illustrates a long series of litigation, spanning presidential administrations and involving differing approaches to the judicial remedy. Finally, we use an Endangered Species Act decision to illustrate how an agency might persist in a policy valence notwithstanding an opposing valence alignment of both the reviewing court and presidential administration.

A. The Clean Water Act and “Waters of the United States”

Remand orders may afford agencies sufficient discretion to allow a range of substantive and procedural choices in their responses. Further, these choices may shift over time in response to factors such as changes in presidential administration and yet remain consistent with those orders. This dynamic is well illustrated by agency efforts to define the scope of the Clean Water Act (CWA)’s

75. There is no special distinction directing our choice of case studies. In fact, numerous examples reflect similar dynamics, some of which we highlight in the notes.

jurisdictional language, “waters of the United States.”⁷⁶ In the infamous decision *Rapanos v. United States*, the Supreme Court invalidated the Army Corps of Engineers’ (Corps) determination that development of private property (which begun during the George H.W. Bush Administration in 1989) that allegedly contained jurisdictional wetlands violated the statute’s prohibition on the unpermitted discharge of dredged or fill material.⁷⁷

The Court splintered 4-1-4, producing no majority opinion. Five justices agreed that the Corps had misconstrued the scope of the “waters of the United States” to which the permit requirement applied, but Justice Kennedy, the fifth vote for remand of the challenged agency decisions, disagreed with the plurality on the proper approach to addressing that mistake. The plurality vacated the judgments of the appellate court, which had upheld the federal government’s enforcement actions against two sets of property owners, and remanded “for further proceedings.”⁷⁸ Chief Justice Roberts, who joined the plurality opinion, wrote separately. He chastised the Corps and EPA, which jointly administer the dredge-and-fill permit program, for failing to issue regulations clearly specifying the program’s jurisdictional bounds in the face of an earlier determination by the Court⁷⁹ that their approach was excessively broad.⁸⁰ But the Court provided little guidance on the substantive approach the agencies should take on remand and none on the procedural mechanism for doing so.⁸¹ Further, the district court’s mandate on remand was amorphous at best. The district court remanded to the Corps “for further proceedings consistent with the Supreme Court’s decision” in *Rapanos/Carabell*.⁸² Given the mass confusion generated by the Court’s splintered decision in *Rapanos*,⁸³ these

76. The CWA prohibits the unpermitted discharge of any pollutant, including dredged or fill material. 33 U.S.C. §§ 1311(a), 1344(a) (2012). It defines such a discharge as the addition of a pollutant by a point source to navigable waters. *Id.* § 1362(12). The Act defines “navigable waters” to mean “waters of the United States, including the territorial seas.” *Id.* § 1362(7).

77. *Rapanos v. United States*, 547 U.S. 715 (2006).

78. *Id.* at 757.

79. *Solid Waste Agency of N. Cook County v. U.S. Army Corps of Eng’rs*, 531 U.S. 159 (2001).

80. *Rapanos*, 547 U.S. at 757–58 (Roberts, C.J., concurring).

81. On remand, the Court of Appeals remanded “to the district court with instructions to remand to the Army Corps of Engineers for further proceedings consistent with the Supreme Court’s decision in *Rapanos*.” *Carabell v. U.S. Army Corps of Eng’rs*, 217 F. App’x 431, 431 (6th Cir. 2007).

82. *Carabell v. U.S. Army Corps of Eng’rs*, No. 01-CV-72797-PDB-WC (E.D. Mich. Mar. 6, 2007).

83. *See, e.g., United States v. Cundiff*, 555 F.3d 200, 207 (6th Cir. 2009) (“Parsing any one of *Rapanos*’s lengthy and technical statutory exegeses is taxing, but the real difficulty comes in determining which—if any—of the three main opinions lower courts should look to for guidance.”).

instructions were singularly unilluminating and appeared to leave considerable interpretive discretion to the Corps.

Ultimately, Rapanos reached a million-dollar settlement with the Corps.⁸⁴ Because the particular matters were resolved, the agency might have continued to develop its approach through adjudications, notwithstanding Justice Roberts's strong admonishment. Almost exactly a year after the Court's decision and during the second term of the George W. Bush Administration, however, EPA and the Corps issued a joint memorandum providing nonbinding guidance to EPA regions and Corps districts on how to respond to *Rapanos* in future permit proceedings.⁸⁵ A year and a half later, as the Bush Administration neared its end, the two agencies issued additional guidance, which superseded the earlier guidance.⁸⁶ The Obama Administration took a different approach, both substantively and procedurally. Choosing to clarify the definition of "waters of the United States" through a legislative rule rather than through a nonbinding guidance document, EPA and the Corps issued a notice of proposed rulemaking in 2014⁸⁷ and final regulations a little more than a year later.⁸⁸ Whether the final regulations expand the scope of regulatory coverage reflected in the earlier guidance documents is a matter of dispute. Many parties challenged the regulations in multiple courts.⁸⁹

84. EPA, Press Release, *John Rapanos Agrees to Pay for Clean Water Act Violations*, Dec. 29, 2008, <https://yosemite.epa.gov/opa/admpress.nsf/d0cef6618525a9efb85257359003fb69d/b029ab82bf92cd5f8525752e0072fc60!OpenDocument>. The outcome of *Carabell* is unknown to the authors, despite searches of the Corps' website, Westlaw, and even Wikipedia.

85. Clean Water Act Jurisdiction Following the U.S. Supreme Court's Decision in *Rapanos v. United States* & *United States v. Carabell* (June 2007), https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf. The guidance provided:

The CWA provisions and regulations described in this document contain legally binding requirements. This guidance does not substitute for those provisions or regulations, nor is it a regulation itself. It does not impose legally binding requirements on EPA, the Corps, or the regulated community, and may not apply to a particular situation depending on the circumstances. Any decisions regarding a particular water will be based on the applicable statutes, regulations, and case law.

Id. at 4 n.17.

86. *Id.*

87. Proposed Rule, Definition of "Waters of the United States" Under the Clean Water Act, 79 Fed. Reg. 22,188 (Apr. 21, 2014).

88. Clean Water Act Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (June 29, 2015) (codified at 33 C.F.R. pt. 328 (2017)).

89. *In re* U.S. Dep't of Defense and U.S. Envtl. Prot. Agency Final Rule: Clean Water Rule: Definition of "Waters of the United States," 817 F.3d 261, 264 (6th Cir. 2016), *cert. granted* sub nom. Nat'l Ass'n of Mfrs. v. Dep't of Def., 137 S.Ct. 811 (2017). The Supreme Court refused without explanation to hold the briefing in the case in abeyance to await likely revisions to or repeal of the rule by EPA under the newly ensconced Trump Administration. Nat'l Ass'n of Mfrs. v. Dep't of Def., 2017 WL 1199467, No. 16-299 (Apr. 3, 2017). *See also*

The interplay of variables in this example is complex. First, the decisions in *Rapanos* spoke broadly to the meaning of the term “waters of the United States” and suggested that rulemaking would be a preferable means of exercising agency discretion. But the decision did not mandate that procedural vehicle or even any particular response by the agency. Given that the case involved adjudications, only those discrete matters were left open for further action on remand. Were we to attempt to code the result, the dispositions of the adjudicatory appeals alone would have not provided this full picture.

The timing of agency response to the remand was short—about a year. If one is worried about remanded matters losing their place among agency priorities—especially when a concrete mandate is lacking—this quick response might be reassuring. It also runs counter to our predictions regarding agency behavior as a general matter when there are open-ended remedies. Here, the other variables may be useful. Prior to judicial review, the Corps’ initial valence was regulatory in the sense that it determined that a section 404 permit was required for *Rapanos*.⁹⁰ This valence differed from that predicted by the presidential administration (Republican), but given that the Corps’ action was adjudicatory (rather than a major rule), this lack of alignment is not particularly remarkable. The winning litigants’ valence was deregulatory in the sense that a majority of the Court would have cabined the jurisdictional reach of the CWA, though only slightly given the splintered opinions and reasoning. In other words, the remand’s valence was out of alignment with the Corps’ original adjudicatory valence.

Yet somewhat counter-intuitively, the agencies’ behavior on remand reinforced a deregulatory valence alignment consistent with that of both the President and the winning litigants.⁹¹ Although

Christopher D. Thomas, *Judicial challenges to the Clean Water Rule: A brief and relatively painless guide for the procrastinator*, 47 TRENDS No. 4 (Mar./Apr. 2016), http://www.americanbar.org/publications/trends/2015-2016/march-april-2016/judicial_challenges_to_the_clean_water_rule_a_brief_and_relatively_painless_guide_for_the_procrastinator.html.

90. Carabell was denied his permit, but the Corps determined his activity came within the jurisdictional reach of the CWA. *Rapanos v. United States*, 547 U.S. 715, 730 (2006).

91. The switch may have been due to the onset of the George W. Bush Administration, which was generally regarded as more anti-regulatory than either the George H.W. Bush or Clinton Administrations on environmental matters. Compare Richard Abel, *Civil Rights and Wrongs*, 38 LOY. L.A. L. REV. 1421, 1428 (2005) (characterizing President George W. Bush appointees to EPA as “anti-environmental”), with Richard N. L. Andrews, *The EPA at 40: An Historical Perspective*, 21 DUKE ENVTL. L. & POL’Y F. 223, 240 (2011), asserting that:

[O]ne suspects that [George H.W. Bush] sought for both personal and political reasons to try to reaffirm and reclaim a Republican version of the environmental policy agenda from the partisan polarization to which it had become hostage . . . [and noting that he] appointed William Reilly as his EPA administrator, a Republican moderate who was deeply knowledgeable about environmental science and

issuing a rule seems, on its face, to be a regulatory action, here the response was a non-legislative rule—a guidance document lacking the force of law. Moreover, the guidance itself retained the fact-specific nature of the jurisdictional waters inquiry, ensuring that policy may continue to develop through adjudication. Of course, the use of a guidance document carried a risk for the policy’s longevity—it left open the possibility that a later administration could reverse course.⁹² Years later, the Obama Administration took a more regulatory *procedural* approach by issuing a legislative rule.⁹³ That rule also entails fact-specific inquiries. The bottom line is that all of these events created an environment that allowed great discretion for the agency in crafting its response on remand. Notably, although the procedural mechanisms chosen by each administration differ in their valence, both administrations’ substantive rules maximize agency discretion by retaining fact-specific approaches.⁹⁴

B. Wild and Scenic Rivers Act and Yosemite National Park

policy, and widely respected by both Republicans and Democrats, as well as by businesses and environmental advocacy groups. Reilly also enjoyed with Bush the closest personal relationship that any EPA administrator has had with their president.

92. Had the Bush agencies issued a legislative rule, the later Obama Administration would have had to explain any shift in course. *Encino Motorcars, LLC v. Navarro*, 136 S. Ct. 2117, 2125–26 (2016) (citations omitted). Likewise, the Trump Administration, which has initiated a review of the Obama rule, will have to provide a substantive justification if it repeals or alters the Obama rule and is challenged in court. *See* Exec. Order No. 13,778, Restoring the Rule of Law, Federalism, and Economic Growth by Reviewing the “Waters of the United States” Rule, § 2, 82 Fed. Reg. 12,497, 12,497 (Feb. 28, 2017) (ordering EPA to “review [the Obama rule] for consistency with the policy set forth in section 1 of this order and publish for notice and comment a proposed rule rescinding or revising the rule, as appropriate and consistent with law”); Intention To Review and Rescind or Revise the Clean Water Rule, 82 Fed. Reg. 12,532 (Mar. 6, 2017) (emphasis added) (announcing EPA’s “intention to review *and rescind or revise* the [Obama rule],” thus apparently prejudging the issue and eliminating the option of retaining the rule before the mandated review has even been conducted).

93. *See supra* notes 87–88 and accompanying text.

94. For a similar chain of events following the Ninth Circuit’s invalidation of six biological opinions issued by the Fish and Wildlife Service (FWS) under the Endangered Species Act (ESA) on proposed timber harvests, see *Gifford Pinchot Task Force v. U.S. Fish & Wildlife Serv.*, 378 F.3d 1059 (9th Cir. 2004) (striking down biological opinions because they were based on an invalid regulatory definition; the regulation had not been challenged and so remained in place). *See also* FWS Acting Director Marshall Jones Memo to Regional Directors, Application of the “Destruction or Adverse Modification” Standard under Section 7(a)(2) of the Endangered Species Act (Dec. 9, 2004), <http://www.endangeredspecieslawandpolicy.com/files/2011/01/Adverse-Modification-Guidance.pdf> (guidance document); Inter-agency Cooperation—Endangered Species Act of 1973, as Amended; Definition of Destruction or Adverse Modification of Critical Habitat, 81 Fed. Reg. 7214 (Feb. 11, 2016) (codified at 50 C.F.R. § 402 (2017) (legislative rule revising regulation deemed invalid in *Gifford Pinchot*).

The fate of a land use plan issued by the National Park Service (NPS) for Yosemite National Park illustrates a variety of remand orders, agency reactions, and behaviors across administrations. Environmental groups brought suit to enjoin NPS from continuing a highway reconstruction project in Yosemite until the agency complied with the Wild and Scenic Rivers Act (WSRA).⁹⁵ The district court held that NPS's planning for the project was arbitrary and capricious because of its failure to develop a comprehensive management plan (CMP) for the area under the WSRA.⁹⁶ The court enjoined further work on one segment of the road and provided that NPS "SHALL prepare and adopt a valid Comprehensive Management Plan . . . in regard to the Merced River as designated under the Wild and Scenic Rivers Act no later than twelve months after the entry of this decision."⁹⁷

Here the winning policy valence—emphasizing the protective aspects of the WSRA—aligned with that of the Clinton Administration on remand. And the remand itself was strictly crafted, limiting NPS's discretion both in timing and in substance. NPS issued a record of decision quickly (little more than a year after the district court's decision), in late 2000 at the end of the Clinton Administration.⁹⁸ When the groups challenged that action as well, the district court rejected most of their challenges, suggesting that the agency action was at least partly more aligned with the administration's and winning litigants' valence. On the other hand, the court held that the agency failed to amend the general management plan for Yosemite to ensure its consistency with the WSRA.⁹⁹ On appeal, the Ninth Circuit found a wider range of violations than the district court had—suggesting a lack of valence alignment between the agency's action on remand and that of the winning litigants.¹⁰⁰ Although the court found no violation of the National Environmental Policy Act (NEPA), as the plaintiffs had alleged, it held that NPS violated the WSRA by failing to adequately assess user capacities on the Merced River, which runs through the Park, and by defining too narrowly the boundaries of one portion of the River protected by the WSRA. The court remanded to the district court to enter an appropriate order requiring NPS to remedy these deficiencies in the

95. 16 U.S.C. §§ 1271–1284 (2012).

96. *Sierra Club v. Babbitt*, 69 F. Supp. 2d 1202 (E.D. Cal. 1999).

97. *Id.* at 1263 (emphasis in original).

98. *Friends of Yosemite Valley v. Norton*, 194 F. Supp. 2d 1066, 1071 (E.D. Cal. 2002), *aff'd in part, rev'd in part*, 348 F.3d 789 (9th Cir. 2003), *opinion clarified*, 366 F.3d 731 (9th Cir. 2004).

99. *Id.* at 1113–14.

100. *Friends of Yosemite Valley v. Norton*, 348 F.3d 789 (9th Cir. 2003), *opinion clarified*, 366 F.3d 731 (9th Cir. 2004).

CMP in a timely manner. Inasmuch as NPS was supposed to have completed a CMP for the Merced River some twelve years before, we would also expect that NPS would implement, as soon as is practicable, temporary or provisional measures designed to avoid environmental degradation pending the completion of its task.¹⁰¹

On remand and now under a deregulatory presidential administration (George W. Bush's first term), NPS advised the court that it planned to proceed with several projects in the Yosemite Valley segment of the Merced River corridor, but the plaintiffs moved to enjoin it from doing so. The district court entered an order finding that the Ninth Circuit had not invalidated the plan as a whole and denied the injunction.¹⁰² On further appeal, the Ninth Circuit clarified that it had indeed invalidated the entire Merced River plan and enjoined NPS from implementing any projects developed in reliance on the plan.¹⁰³ The district court then issued an order requiring the NPS to "remedy[] in a timely manner the deficiencies found in the 2000 [plan]" and prepare a supplemental Environmental Impact Statement (EIS), and enjoining some of the projects pending completion of a revised plan.¹⁰⁴ A year later, in 2005, NPS issued a supplemental EIS and revised plan.¹⁰⁵ The environmental groups sued again. The district court found that the agency had remedied the problems with the River boundaries, but not the defective user analysis problem.¹⁰⁶ It also held that NPS violated NEPA by failing to consider an adequate range of alternatives.¹⁰⁷ This time, the district court did not specify a schedule for the agency's response. The Ninth Circuit affirmed on both grounds, additionally finding that NPS violated the WSRA by failing to adopt a single comprehensive plan for the Merced River.¹⁰⁸ It remanded back to the district court "for further action consistent with this opinion."¹⁰⁹

About fifteen months later, now during the first year of President Obama's first term, NPS issued a notice that it was reopening public scoping for planning and NEPA analysis for a new Merced

101. *Id.* at 803–04.

102. *Friends of Yosemite Valley v. Scarlett*, 439 F. Supp. 2d 1074, 1081 (E.D. Cal. 2006), *aff'd*, 520 F.3d 1024 (9th Cir. 2008).

103. *Friends of Yosemite Valley v. Norton*, 366 F.3d 731 (9th Cir. 2004). This confusion could easily have been avoided if the Ninth Circuit's initial remand order had been clearer.

104. *Scarlett*, 439 F. Supp. 2d at 1081.

105. *Id.* at 1082.

106. *Id.* at 1095–1100.

107. *Id.* at 1103–08.

108. *Friends of Yosemite Valley v. Kempthorne*, 520 F.3d 1024, 1036–37 (9th Cir. 2008).

109. *Id.* at 1039.

River CMP and EIS in response to the Ninth Circuit's latest opinion.¹¹⁰ Early the next year, it announced that it was extending the comment period due to "continuing public interest."¹¹¹ Three years later, it announced the availability of a Draft EIS and proposed CMP.¹¹² A year later, it published a notice of the availability of a Final EIS on the proposed CMP and indicated that it would execute a Record on Decision (ROD) no sooner than thirty days after the date that EPA published its notice of the filing of a Final EIS for the CMP.¹¹³ Finally, in May 2014, fifteen years after adoption of the initial revisions to the Yosemite and Merced plans, and six years after the Ninth Circuit's final remand order, NPS published notice of the availability of a ROD and Final EIS and approval of the revised CMP.¹¹⁴

The extended back-and-forth between the courts and NPS included remand orders with and without deadlines for action. On one hand, the agency responded much more quickly when it was required or strongly urged to do so, as we predicted above.¹¹⁵ On the other hand, it persisted in its errors and made new ones when it acted quickly, although there is no way to know whether haste was responsible. After all, during much of this time period the objectives of the agency and the administration of which it was a part diverged from those of the winning litigants: Although NPS continued to make efforts toward regulatory compliance, its policy goals tracked the presidential administration's, not the winning litigants' interests. Two things changed by May 2014. Most obviously, the presidential and litigants' valences came into alignment, and—if meaning can be read into the lack of judicial challenge by

110. New Merced Wild and Scenic River Comprehensive Management Plan; Yosemite National Park; Mariposa and Madera Counties, CA; Notice of Intent To Prepare Environmental Impact Statement, 74 Fed. Reg. 31,305 (June 30, 2009).

111. Intent To Prepare an Environmental Impact Statement for the New Merced Wild and Scenic River Comprehensive Management Plan Yosemite National Park, Mariposa and Madera Counties, CA, 75 Fed. Reg. 5803 (Feb. 4, 2010).

112. Draft Environmental Impact Statement for Merced Wild and Scenic River Comprehensive Management Plan, Yosemite National Park, Madera and Mariposa Counties, CA, 78 Fed. Reg. 5492 (Jan. 25, 2013).

113. Final Environmental Impact Statement for the Merced Wild and Scenic River Comprehensive Management Plan, Yosemite National Park, Madera and Mariposa Counties, California, 79 Fed. Reg. 10,836 (Feb. 26, 2014).

114. Notice of Availability of Record of Decision for Merced River Comprehensive Management Plan, Yosemite National Park, California, 79 Fed. Reg. 25,889 (May 6, 2014).

115. For another case in which an agency provided a remarkably rapid response to a remand order with a short deadline, see *Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng'rs*, 833 F.3d 1274 (11th Cir. 2016) (suggesting a remand without vacatur and a one-year timeline). The agency reaffirmed its original position, albeit with updated analysis, within six weeks, and both reviewing courts upheld the action. *Black Warrior Riverkeeper, Inc. v. U.S. Army Corps of Eng'rs*, 2015 WL 6152898, at *2 (N.D. Ala. 2015), *aff'd*, 833 F.3d 1274 (11th Cir. 2016). The rapidity of the agency's response to the remand order was likely influenced by the fact that it responded by reaffirming its initial decision to issue the permit.

environmental groups¹¹⁶—the agency’s valence aligned with these institutional valences as well. But note in addition that NPS’s final action took place over a longer span of time than its earlier responses. The lesson here may be that courts should balance the desire to foster quick responses on remand in order to avoid delays that may frustrate statutory objectives with the recognition that it may take considerable time and care for agencies to respond conscientiously to remand orders.¹¹⁷

C. *The Endangered Species Act and Agency Persistence*

Despite the power of administrations’ and litigants’ valence alignments, agencies sometimes remain committed to their original

116. As mentioned in Part III, a litigant’s persistence is surely also a factor in cabining agency discretion on remand. The pesticide procedure discussed *supra* at notes 10–15 and accompanying text provides another example, in which the litigants challenging the agency refused to take no for an answer. *In re Pesticide Action Network N. Am.*, 840 F.3d 1014 (9th Cir. 2016); *In re Pesticide Action Network N. Am.*, 798 F.3d 809 (9th Cir. 2015); *In re Pesticide Action Network N. Am.*, 532 Fed. Appx. 649 (9th Cir. 2013). By contrast, an agency defeated a challenge to its long-delayed response to a judicial remand order in *Nat’l Envtl. Dev. Ass’n’s Clean Air Project v. EPA*, 686 F.3d 803 (D.C. Cir. 2012). There, we posit that the agency’s more than decade-long delay in responding to the court’s order may have been hastened by more persistence by the litigants—though administration changes were also likely to blame. See also *Envtl. Def. Fund v. EPA*, 898 F.2d 183 (D.C. Cir. 1990) (invalidating EPA regulations under the CAA setting increments of permissible deterioration of clean air quality for oxides of nitrogen); *Envtl. Def. Fund v. EPA*, 489 F.3d 1320 (D.C. Cir. 2007) (upholding EPA regulations issued on remand *fifteen years* after the D.C. Circuit’s initial decision). The environmental petitioners in the former *Envtl. Def. Fund* case requested that the court order that EPA respond to its decision within two years, but the court refused to do so. 898 F.2d at 190.

117. For an example of a case in which the agency defeated a challenge to its long-delayed response to a judicial remand order, see *Clean Air Project*, 686 F.3d at 803. EPA decided that revisions to the primary national ambient air quality standard (NAAQS) for sulfur dioxide (SO₂) under the Clean Air Act (CAA) were not necessary to control exposure to high-level, short-term SO₂ bursts. The D.C. Circuit remanded for lack of an adequate explanation. It found that EPA did not justify its conclusion that short-term SO₂ exposures do not constitute a public health problem for asthmatics, noting that the agency had failed to explain the link between its finding that repeated short-term exposures were significant, and that there would be tens to hundreds of thousands of such exposures annually to a susceptible subpopulation. *Am. Lung Ass’n v. EPA*, 134 F.3d 388 (D.C. Cir. 1998). The court remanded “for further elucidation” without specifying a time limit for the agency’s response. *Id.* at 388, 394. Nearly twelve years later, EPA proposed revisions to its NAAQS for SO₂, Proposed Rule, Primary National Ambient Air Quality Standard for Sulfur Dioxide, 74 Fed. Reg. 64,810 (proposed Dec. 8, 2009), which it finalized six months later. Primary National Ambient Air Quality Standard for Sulfur Dioxide, 75 Fed. Reg. 35,520 (June 22, 2010) (codified at 40 C.F.R. pts. 50, 53, 58 (2017)). The final standards included a short-term (one-hour averaging time) standard for SO₂. *Id.* at 35,538. Seven months after that, EPA denied a petition for reconsideration filed by several states and industrial interests that was based on alleged procedural and substantive errors. Denial of the Petitions to Reconsider the Final Rule Promulgating the Primary National Ambient Air Quality Standard for Sulfur Dioxide, 76 Fed. Reg. 4780 (Jan. 26, 2011) (codified at 40 C.F.R. pts. 50, 53, 58 (2017)). The D.C. Circuit upheld the standards, rejecting the procedural and substantive claims raised by the states and industrial interests that had sought reconsideration. *Clean Air Project*, 686 F.3d 803.

course of action, persisting even across multiple presidential administrations. Although we have not identified agency persistence as a discrete variable, it is important to illustrate how that fact can produce outcomes that may be contrary to those hypothesized. Several Endangered Species Act (ESA) cases demonstrate this dynamic; we highlight one here involving efforts to delist the Greater Yellowstone grizzly bear.¹¹⁸

The U.S. Fish and Wildlife Service (FWS) listed the grizzly bear as threatened in the lower forty-eight states in 1975, three years after the ESA's adoption.¹¹⁹ FWS's efforts to spur growth in the Yellowstone grizzly population culminated in the agency's 2007 Final Conservation Strategy for the Grizzly Bear in the Greater Yellowstone Area.¹²⁰ Shortly thereafter, FWS, during the second term of the George W. Bush Administration, issued a final rule designating the Greater Yellowstone grizzly bear as a distinct population segment (DPS)¹²¹ and removing it from the list of threatened species.¹²² A local environmental group brought suit, alleging that the delisting decision violated the ESA on four grounds. The district court agreed with two of those arguments, and it vacated the delisting and remanded back to FWS for further consideration. It concluded that the agency failed to justify its finding that adequate regulatory mechanisms were in place to protect the bear after

118. See also Decision Not to Regulate Forest Road Discharges Under the Clean Water Act; Notice of Decision, 81 Fed. Reg. 43,492 (July 5, 2016) (deciding not to require CWA permits for stormwater discharges from forest roads, 13 years after a remand instructing EPA to reconsider the same decision, *Envtl. Def. Ctr., Inc. v. EPA*, 344 F.3d 832 (9th Cir. 2003), notwithstanding a change from a deregulatory to a regulatory presidential administration); the saga of the flat-tailed horned lizard, recounted in Hammond, *Dialogue*, *supra* note 15, at 1747–53. An update, showing a still-persistent agency, is provided at Endangered and Threatened Wildlife and Plants; Withdrawal of Proposed Rule to List the Flat-Tailed Horned Lizard as Threatened, 76 Fed. Reg. 14,210 (Mar. 15, 2011) (to be codified at 50 C.F.R. §17). For another example involving the polar bear, see *In re Polar Bear Endangered Species Act Listing and Section 4(d) Litig.*, 709 F.3d 1 (D.C. Cir. 2013) (upholding listing of polar bear following protracted persistence by agency).

119. *Greater Yellowstone Coal, Inc. v. Servheen*, 665 F.3d 1015, 1019 (9th Cir. 2011).

120. FINAL CONSERVATION STRATEGY FOR THE GRIZZLY BEAR IN THE GREATER YELLOWSTONE AREA, U.S. FISH & WILDLIFE SERV. (2007), https://www.fws.gov/mountain-prairie/es/species/mammals/grizzly/Final_Conservation_Strategy.pdf.

121. The ESA defines a species to include “any subspecies of fish or wildlife or plants, and any distinct population segment of any species of vertebrate fish or wildlife which interbreeds when mature.” 16 U.S.C. § 1532(16) (2012). For discussion of agency and judicial treatment of DPSs, see 3 GEORGE CAMERON COGGINS & ROBERT L. GLICKSMAN, PUBLIC NATURAL RESOURCES LAW § 29:4 (2d ed. 2007).

122. Endangered and Threatened Wildlife and Plants; Final Rule Designating the Greater Yellowstone Area Population of Grizzly Bears as a Distinct Population Segment; Removing the Yellowstone Distinct Population Segment of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife; 90-Day Finding on a Petition to List as Endangered the Yellowstone Distinct Population Segment of Grizzly Bears, 72 Fed. Reg. 14,866 (Mar. 29, 2007).

its delisting,¹²³ and that the science relied on by FWS did not support its conclusion that declines in the abundance of whitebark pines would not negatively affect grizzly bears.¹²⁴ It vacated the final rule and enjoined FWS from removing the Greater Yellowstone DPS from the list of threatened species.¹²⁵

The agency appealed, but the Ninth Circuit affirmed.¹²⁶ It disagreed with the district court regarding adequate regulatory mechanisms to protect the grizzly bear after delisting, but agreed that the agency failed to justify its finding that the decline in whitebark pines, which provide a significant food source for the grizzly bears, was not likely to threaten the grizzly bear.¹²⁷ The court affirmed the district court's judgment vacating and remanding the rule.¹²⁸

By the time of the remand, President Obama was in office and the agency's and litigants' valences might well have been considered to be in alignment and regulatory. But four-and-a-half years after remand, in the final full year of the Obama Administration's second term, the FWS issued a proposed rule to delist the Greater Yellowstone DPS.¹²⁹ The agency based that proposal on its determination that the Greater Yellowstone grizzly bear population "has increased in size and more than tripled its occupied range since being listed as threatened under the Act in 1975 and that threats to the population are sufficiently minimized."¹³⁰ It noted that if the delisting were finalized, grizzly bears would be classified by Wyoming, Montana, and Idaho as game animals throughout the DPS boundaries, a status which "provides legal protection to grizzly bears by prohibiting unlimited or unwarranted killing of grizzly bears by the public."¹³¹ It explained its expectation that wildlife commissions in the three states would adopt regulations with commitments to coordinate hunting limits consistent with annually calculated mortality limits, and that the regulations, which "would constitute legally enforceable regulatory mechanisms," had to be "adopted and in place before the [FWS] goes forward with a final delisting rule."¹³²

123. *Greater Yellowstone Coal, Inc. v. Servheen*, 672 F. Supp. 2d 1105, 1113–18 (D. Mont. 2009), *aff'd in part, rev'd in part, and remanded*, 665 F.3d 1015 (9th Cir. 2011).

124. *Id.* at 1118–20.

125. *Id.* at 1126–27.

126. *Greater Yellowstone Coal, Inc. v. Servheen*, 665 F.3d 1015, 1032 (9th Cir. 2011).

127. *Id.* at 1024–30.

128. *Id.* at 1032.

129. *Endangered and Threatened Wildlife and Plants; Removing the Greater Yellowstone Ecosystem Population of Grizzly Bears From the Federal List of Endangered and Threatened Wildlife*, 81 Fed. Reg. 13,174 (Mar. 11, 2016).

130. *Id.* at 13,174.

131. *Id.* at 13,210.

132. *Id.* at 13,211.

In conversations with one of the authors, a former FWS official involved in decisions relating to the Yellowstone DPS offered the view that FWS had examined the science carefully before it delisted the grizzly bear in 2007 and determined that it solidly supported a finding that the Greater Yellowstone DPS was no longer threatened.¹³³ This official viewed the Ninth Circuit's decision as insufficiently deferential to the agency's expertise and based on a misunderstanding of the science. The official added that the agency responded to the court's remand order by diligently reexamining the science, and, after doing so, reached the same conclusion as it had done initially as to the grizzly bear's legal status. Hence, it proposed a second time to delist the grizzly bear. As of this writing, FWS still lists the grizzly bear as threatened, but has indicated that its proposal to delist the Greater Yellowstone DPS is under review.¹³⁴

IV. FUTURE RESEARCH QUESTIONS

The examples above reveal a nuanced picture of agency behavior on remand, involving not simply our four variables—the nature of the remand order, timing, valence alignment, and presidential administration—but certainly others as well (such as litigant and agency persistence). In this Part, we offer some preliminary observations about how our initial predictions are borne out in the case studies, and how future empirical work might be crafted to develop a more complete picture.

First, the specificity of the remand order matters significantly, as we predicted. The *Rapanos* decision's indeterminacy, for example, created significant discretion for the agencies involved to respond according to presidential preferences while retaining flexibility across those administrations. By contrast, the Ninth Circuit's persistent specificity in its remand orders for Yosemite National Park did not leave nearly so much discretion as to timing or substance; still, the overall time to a resolution of the matter was long, perhaps as a result of disagreement among agency, presidential, and judicial policy valences. And the grizzly bear example demonstrates that notwithstanding a presidential and judicial valence alignment, an agency may have other reasons to persist in adhering to its position even throughout numerous challenges.¹³⁵

133. Interview with Christopher Servheen, Adjunct Research Associate Professor of Wildlife Conservation, University of Montana, W.A. Franke College of Forestry & Conservation, and Robert Glicksman, Sept. 6, 2016.

134. *Grizzly Bear (Ursus arctos horribilis)*, U.S. FISH AND WILDLIFE SERV., <http://ecos.fws.gov/ecp0/profile/speciesProfile?sId=7642> (last visited Apr. 2, 2017).

135. This interplay involved competing institutional competencies regarding scientific uncertainty, which is likely a further variable and is discussed in Hammond, *Dialogue, supra* note 15, at 1753 n.191.

The Yosemite National Park example raises an important consideration for assessing remand orders as a normative matter. Although we generally appreciate swift agency corrections to flawed actions, it is important that courts be realistic in setting time limits. Too short a time—which is a strict cabining of discretion—may be to the detriment of the rule’s long-term success. Our case studies do not permit assessment of another of our timing predictions: that agencies may act quickly on remand to preserve the incumbent administration’s policy preferences. Other examples, however, may bear out that prediction.¹³⁶

The presidential administration’s policy preferences do seem to have strong predictive value—perhaps an obvious point.¹³⁷ By contrast, agency decisions that appear regulatory, but are remanded for not going far enough, introduce subtleties that may prove difficult to sort out in a large dataset. Moreover, the Yosemite National Park example—in which the agency persisted in its position despite presidential and winning litigants’ valence alignment—helps show the limits of our variables, which do not look deeply into the agency’s own culture, structure, or other “internal” means of decisionmaking. Although our variables help focus a critical examination of agency behavior on remand, the Yosemite National Park example demonstrates that other approaches would usefully complement this work and help show the full picture of agency discretion on remand.

V. CONCLUSION

In this Essay, we have characterized agency behavior on remand as a unique space for agency discretion, at least in some circumstances. How agencies behave in this space, we propose, might be predicted at least in part by four types of variables: the nature of the remand order; the timing of the agency’s action; the valence alignments as between the administration, agency, and winning litigants; and the timing of presidential administrations. These variables admittedly present some coding difficulties, but our case studies suggest their usefulness in understanding and explaining agency behavior. In addition, the richness of the case studies points once again to a need for better of understanding agency behavior from within.

136. For example, the Obama Administration responded quickly to the MACT remand in *Michigan v. EPA*, as discussed in the Introduction. *Supra* text accompanying note 8. The George W. Bush Administration hastily reissued its national forest planning rule (repeating the same mistakes that led to invalidation and remand of an earlier, virtually identical rule) less than a year before. *Supra* note 72.

137. On public choice generally, see George C. Stigler, *The Theory of Economic Regulation*, 2 BELL J. ECON & MGMT. SCI. 3 (1971).

AGENCY MOTIVATIONS IN EXERCISING DISCRETION

DAVID L. MARKELL*

The search for the optimal structure of the administrative state in the United States has been ongoing for decades and shows no sign of abating anytime soon.¹ It has spawned a rich debate about the proper roles of key federal government actors including the judicial,² legislative,³ and executive branches.⁴ Consideration of the appropriate roles for administrative agencies, sometimes referred to as the

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1. See, e.g., Richard A. Epstein, *A Revolution in Administrative Law*, HOOVER INSTITUTION DEFINING IDEAS (Jan. 16, 2017) (suggesting that Congress is considering legislation that “could fundamentally alter” the structure of American administrative law for years to come.); Samuel Estreicher & Steven Menashi, *Taking Steel Seizure Seriously: The Iran Nuclear Agreement and the Separation of Powers*, 86 FORDHAM L. REV. (forthcoming 2017), <https://ssrn.com/abstract-2903574> (providing one example of the ongoing character of this debate, arguing that former President Obama’s actions in the 2015 agreement with Iran violate separation-of-powers limits on executive power). For an overview of the “administrative state,” see, e.g., JOHN F. MANNING & MATTHEW C. STEPHENSON, LEGISLATION AND REGULATION 332 (2d ed. 2013). For an exploration of the concept of “optimal governance” in the environmental arena, see, e.g., Daniel C. Esty, *Toward Optimal Environmental Governance*, 74 N.Y.U. L. REV. 1495 (1999).

2. See RICHARD J. PIERCE, JR., SIDNEY A. SHAPIRO & PAUL R. VERKUIL, ADMINISTRATIVE LAW AND PROCESS 126–133 (5th ed. 2009) (discussing the role of judicial review); Emily Hammond & David Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313, 314–315 (2013) (collecting some of the literature that considers judicial review and noting that judicial review is considered a “critical legitimizer of the administrative state,” making the lack of such review of many agency decisions one of the “great paradoxes” in administrative law).

3. Congress’s roles include serving as a gatekeeper for agency action (e.g., discussed in nondelegation cases such as *Whitman v. Am. Trucking Ass’ns*, 531 U.S. 457 (2001)) and providing oversight through a variety of mechanisms. ALISSA M. DOLAN ET AL., CONGRESSIONAL RESEARCH SERVICE, CONGRESSIONAL OVERSIGHT MANUAL (Dec. 19, 2014) (discussing Congressional oversight tools); MAEVE P. CAREY ET AL., CONGRESSIONAL RESEARCH SERVICE, THE CONGRESSIONAL REVIEW ACT: FREQUENTLY ASKED QUESTIONS (Nov. 17, 2016). Views about Congressional power have ebbed and flowed. See, e.g., THE FEDERALIST NO. 48, at 309 (discussing the concern that the legislative branch may have too much power); Jennifer Nou, *Subdelegating Powers*, 116 COLUM. L. REV. 15 (forthcoming 2017) (manuscript at 35) [hereinafter Nou, *Subdelegating Powers*] (suggesting that Congress’s role has diminished in recent years).

4. See Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2341 (2001) (highlighting the importance of the President’s role, including the President’s “ability to effect comprehensive, coherent change in administrative policymaking”); Eric A. Posner & Adrian Vermeule, *Crisis Governance in the Administrative State: 9/11 and the Financial Meltdown of 2008*, 76 U. CHI. L. REV. 1613, 1614 (2009) (suggesting that “[i]n the modern administrative state, it is practically inevitable that legislators, judges, and the public will entrust the executive branch with sweeping power to manage serious crises. . . .”). For an overview of presidential efforts to influence agencies through the Office of Management and Budget’s (OMB) Office of Information and Regulatory Affairs (OIRA) and directives to agencies, see JOHN F. MANNING & MATTHEW C. STEPHENSON, LEGISLATION AND REGULATION 513–539 (2d ed. 2013). For concerns about excessive executive power, see, e.g., BRUCE ACKERMAN, THE DECLINE AND FALL OF THE AMERICAN REPUBLIC 4 (2010).

fourth branch of government, has been one of the important strands in this debate.⁵ The enormous reach and impact of the administrative state no doubt contributes to the extraordinary amount of attention to and interest in how our government operates.⁶

One issue that continues to attract significant attention concerns how much discretion agencies should enjoy in the operation of the administrative state. As Professors Cary Coglianese and Christopher Yoo note, “[w]hat actions these domestic agencies take and how they make their decisions matter greatly, making the discretion exercised by these administrative institutions a proper matter for both investigation and concern.”⁷ Professors John Manning and Matthew Stephenson suggest that the legal regimes that govern the operation of the administrative state have as an important focal point the tension between empowering bureaucrats, and simultaneously limiting their discretion:

Debate about the appropriate shape and content of the administrative state obviously has extended well beyond these actors to include state and local (and other) governments, and non-governmental organizations. Extensive literatures consider these actors. *See, e.g.*, David E. Adelman & Kirsten H. Engel, *Adaptive Federalism: the Case Against Reallocating Environmental Regulatory Authority*, 92 MINN. L. REV. 1796 (2008) (discussing federalism issues in light of climate change challenges); Nestor M. Davidson, *Cooperative Localism: Federal-Local Collaboration in an Era of State Sovereignty*, 93 VA. L. REV. 959, 960 (2007) (discussing the concept of “cooperative localism”); David L. Markell, *Emerging Legal and Institutional Responses to Sea-Level Rise in Florida and Beyond*, 42 COLUM. J. ENVTL. L. 1, 20 (2016) (discussing innovative experiments with regional governance models, and the roles of non-governmental organizations and individuals).

5. For two examples of the voluminous literature considering the role of agencies, see, e.g., Peter L. Strauss, *The Place of Agencies in Government: Separation of Powers and the Fourth Branch*, 84 COLUM. L. REV. 573, 578 (1984) (describing agencies as the fourth branch of government); Anne Joseph O’Connell, *Political Cycles of Rulemaking: An Empirical Portrait of the Modern Administrative State*, 94 VA. L. REV. 889 (2008).

6. *City of Arlington v. FCC*, 133 S.Ct. 1863, 1878 (2013) (Roberts, C.J., dissenting) (discussing the “vast power” of the administrative state); Cary Coglianese & Christopher S. Yoo, *The Bounds of Executive Discretion in the Regulatory State*, 164 U. PA. L. REV. 1587, 1589 (2016) (noting that the “vast apparatus of the regulatory state . . . has grown dramatically since the founding of the United States” and “affect[s] almost every important facet of contemporary life”).

Separation of powers and other constitutional issues of foundational importance that are associated with the administrative state obviously help to account for the sustained attention that the structure and operation of our federal government has received. *See, e.g.*, Neal Kumar Katyal, *Internal Separation of Powers: Checking Today’s Most Dangerous Branch from Within*, 115 YALE L. J. 2314, 2316, 2317 (2006) (discussing how separation of powers [might] be reflected within the executive branch” and aiming to “fill [a] gap” in thinking regarding “checks on the President. . . . beyond . . . wishful thinking about congressional and judicial activity”).

7. Coglianese & Yoo, *supra* note 6, at 1589; *see also* Coglianese & Yoo, *supra* note 6, at 1606 (noting that “[w]hat counts as an abuse of executive discretion, and how best to try to prevent those abuses through law, extralegal norms, or politics, will remain among the most pressing questions at the center of constitutional governance in the United States”); Elizabeth Magill, *Agency-Self-regulation*, 77 GEO. WASH. L. REV. 859, 860 (2009) (noting that “[d]iscretion is at the center of most accounts of bureaucracy”).

[M]uch of what we call ‘administrative law’ can be thought of as a response to [concerns about excessive concentration of power in unelected bureaucrats]. . . . The central problem or tension that runs throughout much of our administrative law is how to reap the perceived benefits of broad delegations—flexible, expert decision-making insulated from the distorting influence of day-to-day partisan politics—while avoiding the perceived danger of arbitrary, abusive government by unelected and unaccountable bureaucrats.⁸

The Florida State University College of Law 2016 *Environmental Law Without Courts* Symposium focused on a question of foundational importance that relates directly to agencies’ exercise of discretion, notably *why* agencies act as they do when they have discretion to pursue different courses of action. The Symposium featured a range of presentations that consider how federal agencies operate when judicial review is unlikely or entirely unavailable.⁹ The current salience of these issues highlights the ongoing debate about the appropriate roles of different actors in the operation of the administrative state.¹⁰

One paper, *Agency Behavior and Discretion on Remand*,¹¹ co-authored by leading administrative law scholars Robert Glicksman and Emily Hammond, considers how agencies exercise their discretion when a court invalidates an agency action. Recognizing that an agency’s subsequent action will likely be subject to judicial review, Glicksman and Hammond focus on the “in-between” stage: “agency behavior following remand.”¹² Concluding that “[an] agency’s

8. MANNING & STEPHENSON, *supra* note 4, at 542; *see also* Gutierrez-Brizuela v. Lynch, 834 F.3d 1142, 1149 (10th Cir. 2016) (Gorsuch, J., concurring) (noting that “*Chevron* and *Brand X* permit executive bureaucracies to swallow huge amounts of core judicial and legislative power and concentrate federal power in a way that seems more than a little difficult to square with the Constitution of the framers’ design. Maybe the time has come to face the behemoth.”).

9. Papers developed for the Symposium include: Eric Biber, *Looking Toward the Future of Judicial Review for Public Lands*, 32 J. LAND USE & ENVTL. L. 359 (2017); Robin Kundis Craig & Catherine Danley, *Federal Fisheries Management: A Quantitative Assessment of Federal Fisheries Litigation Since 1976*, 32 J. LAND USE & ENVTL. L. 381 (2017); Sarah E. Light, *The Military-Environmental Complex and the Courts*, 32 J. LAND USE & ENVTL. L. 455 (2017); Robert Glicksman & Emily Hammond, *Agency Behavior and Discretion on Remand*, 32 J. LAND USE & ENVTL. L. 483 (2017); Emily Bremer & Sharon Jacobs, *Agency Innovation in Vermont Yankee’s White Space*, 32 J. LAND USE & ENVTL. L. 523 (2017).

10. *See supra* note 1. The ongoing debate about the Regulations from the Executive in Need of Scrutiny (REINS) Act is one example of the current salience of these issues. S. 21, 115th Cong. (2017).

11. Glicksman & Hammond, *supra* note 9.

12. *Id.* at 484.

response on remand is often left open to the agency's discretion,"¹³ Glicksman and Hammond hypothesize that at least four factors are likely to influence how agencies exercise their discretion when they act on remand.¹⁴

One such factor is the type of remand by the court.¹⁵ For example, Glicksman and Hammond observe that a remand in which a court imposes mandatory relief that details "the nature of the agency's required response," and retains jurisdiction, would confine agency discretion much more than a remand that does not involve either, such as a remand that vacates a rule in its entirety.¹⁶

A second variable is the time the agency has to act.¹⁷ Glicksman and Hammond suggest that a remand that directs an agency to act within a particular time frame is likely to limit agency discretion in a way that a remand that lacks such a timeline for agency action does not. They predict that, for example, "a very long timetable," or no timetable at all, increases the odds that the agency will take no further action on the matter remanded.¹⁸

A third variable that Professors Glicksman and Hammond hypothesize is likely to affect an agency's exercise of discretion on remand is the valence of the agency action.¹⁹ Glicksman and Hammond's characterization of valence has several dimensions involving a range of actors, including the agency, the litigants, and the President. For instance, Glicksman and Hammond hypothesize that if the agency and President disagree on the merits with the prevailing litigant, the result is likely to be delay in response or an exercise of discretion that is "contrary to the court's expressed interests."²⁰

Finally, Glicksman and Hammond hypothesize that the timing of the Presidential Administration²¹ may influence agency exercises of discretion. In addition to valence, the identity of the political party in power at the time a rule is finalized and at the time of remand may affect an agency's exercise of discretion. Pointing to the

13. *Id.* (also noting that "agencies frequently have significant latitude in whether, how, and when (if ever) to remedy the initial flaw"). Glicksman and Hammond also recognize that the nature of the remand may influence the extent of agency discretion; for example, a court's issuing a mandamus may significantly curtail agency latitude: "[w]e suspect that, barring a specific and enforceable judicial directive, agencies have almost as much discretion as they would in the first instance, when deciding whether and how to regulate after a judicial remand." *Id.* at 486.

14. *Id.* at 485–86. Glicksman and Hammond recognize that other variables influence agency decisions as well. *See id.* at 511.

15. *Id.* at 489–94.

16. *Id.* at 490–92.

17. *Id.* at 494–95.

18. *Id.* at 495.

19. *Id.* at 496–97.

20. *Id.* at 496.

21. *Id.* at 497–99.

U.S. Environmental Protection Agency's (EPA) approach in the *Michigan v. EPA* litigation,²² Glicksman and Hammond suggest that an agency may act quickly on remand if there is an upcoming election, as EPA did in that case.²³

Ultimately, Glicksman and Hammond hope that their article contributes to a richer understanding of the factors that motivate agencies to behave in particular ways. Presumably (and hopefully), improved understanding of agency motivations will lead to improved institutional design of the administrative state.

My purpose in this brief Comment is to suggest four additional variables that might provide insights about the drivers of agency discretionary actions on remand, based in part on the conceptual framework that Professor Glicksman and I advance in *Dynamic Governance in Theory and Application, Part I*,²⁴ and in the case study we provide in *Unraveling the Administrative State: Mechanism Choice, Key Actors, and Tools*.²⁵ Most of these variables relate to the idea, captured in the emerging "inside-out" literature, that close attention to internal agency operations may yield helpful insights concerning agency motivation, and with respect to the optimal institutional design of agencies and of the administrative state more generally.²⁶

In *Dynamic Governance*, Professor Glicksman and I offer a conceptual framework for considering institutional design options

22. 135 S. Ct. 2699 (2015).

23. Glicksman & Hammond, *supra* note 9, at 511 n.136.

24. David L. Markell & Robert L. Glicksman, *Dynamic Governance in Theory and Application, Part I*, 58 ARIZ. L. REV. 563 (2016) [hereinafter Markell & Glicksman, *Dynamic Governance*].

25. David L. Markell & Robert L. Glicksman, *Unraveling the Administrative State: Mechanism Choice, Key Actors, and Tools* (forthcoming 2017) [hereinafter Markell & Glicksman, *Unraveling the Administrative State*]. As is, I'm sure, apparent from the fact that I have co-authored with Professor Hammond and with Professor Glicksman, I hold each scholar in high regard. My comments on their article are an effort to contribute to an ongoing dialogue about opportunities to improve understanding of the operation of the administrative state.

26. The first of the four variables I discuss as influencing agency discretionary actions—key features of the statutory scheme as an important source of context—is not one we discuss directly in these articles. The other three variables I discuss relate directly to the articles. *Id.* This effort to identify additional variables that may be salient in understanding agency responses on remand is not intended to exhaust the variables that may be of value for this purpose. For discussion of the "inside-out" literature, see, e.g., Sidney A. Shapiro & Ronald F. Wright, *The Future of the Administrative Presidency: Turning Administrative Law Inside Out*, 65 U. MIAMI L. REV. 577 (2011); Emily Hammond & David L. Markell, *Administrative Proxies for Judicial Review: Building Legitimacy From the Inside Out*, 37 HARV. ENVTL L. REV. 313 (2013) (discussing the inside-out literature). Glicksman and Hammond recognize that "internal" means of decisionmaking, including an agency's structure, may influence the agency's exercise of discretion. Glicksman & Hammond, *supra* note 9, at 511. Other actors play key roles as well. See Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131, 1138 (2012) (discussing the effects of overlapping delegations of authority among multiple agencies); Nou, *Subdelegating Powers*, *supra* note 3 (discussing the effects of decisionmaking by lower level officials within agencies).

for the administrative state. We suggest that it is especially important to consider three distinct but related variables. The first involves identifying key actors who are or should be involved in policy formulation, implementation, and review.²⁷ The second involves considering legal and other mechanisms available to those actors to carry out their work.²⁸ A third leg of the framework involves close attention to the tools or strategies that are likely to be helpful in achieving policy objectives.²⁹

We situate our framework in a case study of an EPA initiative to improve compliance with the environmental laws known as Next Generation Compliance (Next Gen).³⁰ Through this initiative, EPA is using a variety of legal mechanisms (rulemaking, enforcement settlements, and permitting) to expand use of advanced compliance monitoring, transparency, electronic reporting, and other compliance promotion tools. The agency's assumption is that increased use of these tools will lead to better compliance performance, and perhaps produce other benefits as well.³¹ In the articles, we examine the roles of different actors in developing and implementing EPA's strategies, the use EPA has made of different mechanisms in pursuing its objectives, and the extent to which EPA has succeeded in advancing use of different compliance promotion tools. Our effort to review what EPA is undertaking and accomplishing includes a search to understand better the motivations for the agency's behavior.

One variable that may be salient in predicting how agencies exercise discretion on remand involves key features of the statutory scheme involved. Statutory schemes differ along a number of dimensions. To provide a few examples, they differ in the degree of discretion they provide the agency,³² in the impacts they are likely to have on the targets of regulation or on the beneficiaries of such

27. Markell & Glicksman, *Dynamic Governance*, *supra* note 24, at 566.

28. *Id.* Agencies often have considerable discretion in deciding which legal mechanism to use. *See, e.g.*, Heckler v. Campbell, 461 U.S. 458, 467 (1983) (noting that "where an agency's enabling statute expressly requires it to hold a hearing, the agency may rely on its rulemaking authority to determine issues that do not require case-by-case consideration"); *NLRB v. Bell Aerospace Co.*, 416 U.S. 267, 292-93 (1974) (noting that "any rigid requirement [to require rulemaking] . . . would make the administrative process inflexible and incapable of dealing with many of the specialized problems which arise."); M. Elizabeth Magill, *Agency Choice of Policymaking Forum*, 71 U. CHIC. L. REV. 1383, 1385 (2004) (describing judicial reaction to agency mechanism choice as "hands-off," "at least at first blush").

29. Markell & Glicksman, *Dynamic Governance*, *supra* note 24, at 566.

30. *Id.* at 618-29.

31. *Id.* at 608-17.

32. Some delegations of authority are extraordinarily broad, while others are much more narrow. *See, e.g.*, Whitman v. Am. Trucking Ass'ns, 531 U.S. 457, 473 (2001) (upholding a broad Congressional grant of authority to EPA to establish standards "requisite to protect public health from the adverse effects of [pollutants] in the ambient air").

regulation,³³ in their effects on indirect beneficiaries,³⁴ and in their implementability. Each of these variables in the content of a statute may influence an agency's actions in a remand context, independent of the nature of the remand itself, timing considerations provided by the court, or the administration involved. Some of these variables may affect "valence," the third variable Glicksman and Hammond identify.³⁵ Our study of EPA's efforts to use its legal mechanisms to advance deployment of different agency-preferred compliance promotion tools found significant differences in EPA's deployment of such tools, depending on the statute involved. For example, EPA's use of different mechanisms (e.g., rulemaking versus adjudication) to advance Next Gen tools varies depending on the statute involved.³⁶ Such findings suggest that, at a minimum, it would be a worthwhile project to consider the impacts of statutory features on how agencies exercise discretion on remand and more generally.

A second variable that may provide insights about agency motivations on remand involves close attention to how the distribution of power within an agency may affect the agency's response. Agencies have long been considered to be black boxes, with limited effort made to understand the nature and salience of internal distributions of power.³⁷ The reality is that distribution of authority and capacity within an agency has important implications for how an agency acts.³⁸ The remand context is likely no exception. For example, the distribution of power and capacity between policy staff that is engaged in a particular rulemaking, and agency lawyers, the executive office, and other actors, may affect whose perspectives prevail in formulating an agency response on remand. Efforts to understand agency discretionary actions are likely to be informed by a sophisticated understanding of this dimension

33. Some may put significant numbers of regulated parties out of business, while others may have much less significant impacts. *See, e.g.,* Ass'n of Pac. Fisheries v. EPA, 615 F.2d 794, 808 (9th Cir. 1980) (noting that an EPA regulation was likely to result in the closure of numerous members of the relevant regulated party community).

34. Some may have very significant impacts on indirect beneficiaries, while others are likely to have far less significant effects. *See, e.g.,* Todd J. Zywicki, *Environmental Externalities and Political Externalities: The Political Economy of Environmental Regulation and Reform*, 73 TUL. L. REV. 845, 879–82 (1999) (identifying the various impacts of command-and-control environmental regulations on industry and environmental interest groups).

35. For example, the nature of impacts and implementability may affect valence.

36. Markell & Glicksman, *Unraveling the Administrative State*, *supra* note 25.

37. *Id.*; *see supra* note 1; Elizabeth Magill & Adrian Vermeule, *Allocating Power Within Agencies*, 120 YALE L.J. 1032, 1035 (2011); Christopher J. Walker, *Inside Agency Statutory Interpretation*, 67 STAN. L. REV. 999, 1003 (2015).

38. Christopher J. Walker, *Lawmaking Within Federal Agencies and Without Judicial Review*, 32 J. LAND USE & ENVT'L. L. 551 (2017); Jennifer Nou, *Intra-Agency Coordination*, 129 HARV. L. REV. 421, 490 (2015) [hereinafter Nou, *Intra-Agency Coordination*]; Magill & Vermeule, *supra* note 37, at 1076–83.

of agency decisionmaking. Improved understanding of internal distributions of power and capacity has the potential to yield helpful insights concerning why an agency exercised discretion as it did in connection with a particular remand.³⁹

A third variable that has potential to offer insights concerning an agency's motivations in responding to a remand involves attention to the agency's choices among mechanisms to implement its desired policy. Agencies typically have a variety of formal and informal mechanisms available to them to carry out their statutory responsibilities. The nature of the agency's mechanism choice may influence its exercise of discretion in the remand context, among others. For example, an agency that considers a rule to be far more effective than an enforcement proceeding as a mechanism to advance its policy objectives would seem much more likely to respond to remand of a rule by re-promulgating than an agency that determines that use of another mechanism besides rulemaking would be productive. An agency's response to a remand, in other words, may depend on the mechanism choices available to it, and its view of the attractiveness of those choices.

The agencies' options, following the remand in *Rapanos v. United States* of a rule that EPA and the U.S. Army Corps of Engineers had adopted to define the concept of "waters of the United States" under the Clean Water Act,⁴⁰ are illustrative. The Court declined to direct the agencies to use a specific procedural mechanism to address the substantive flaws the Court found in the rule.⁴¹ As a result, as Glicksman and Hammond point out, EPA and the U.S. Army Corps of Engineers had several mechanisms to choose from to provide such a definition. The agencies could use non-binding guidance, the path the Bush Administration took,⁴² they

39. Issues relating to distribution of power may extend beyond a single agency. For example, agency efforts that are undertaken with the U.S. Department of Justice (DOJ) are influenced by DOJ perspectives as well. See Markell & Glicksman, *Unraveling the Administrative State*, *supra* note 25.

40. 547 U.S. 715, 722 (2006).

41. The Court of Appeals remanded "to the district court with instructions to remand to the Army Corps of Engineers for further proceedings consistent with the Supreme Court's decision in *Rapanos*." *Carabell v. U.S. Army Corps of Eng'rs*, 217 F. App'x 431, 431 (6th Cir. 2007). Glicksman and Hammond note that the decisions in *Rapanos* "suggested that rulemaking would be a preferable means of exercising agency discretion. But the decision did not mandate that procedural vehicle." Glicksman & Hammond, *supra* note 9, at 502.

42. U.S. ENVTL. PROT. AGENCY & U.S. ARMY CORPS OF ENG'RS, CLEAN WATER ACT JURISDICTION FOLLOWING THE U.S. SUPREME COURT'S DECISION IN *RAPANOS V. UNITED STATES* & *CARABELL V. UNITED STATES* (2008), https://www.epa.gov/sites/production/files/2016-02/documents/cwa_jurisdiction_following_rapanos120208.pdf. The guidance provided:

The CWA provisions and regulations described in this document contain legally binding requirements. This guidance does not substitute for those provisions or regulations, nor is it a regulation itself. It does not impose legally binding requirements on EPA, the Corps, or the regulated community, and may not apply to a particular

could use rulemaking, as the Obama Administration did;⁴³ or they could use adjudication, or some combination of these approaches.⁴⁴ My hypothesis is that consideration of an agency's perception of the benefits and disadvantages of each of the procedural options available to it may advance understanding of why an agency exercises its discretion in a particular way in a specific context, including on remand. Empirical work that incorporates sophisticated treatment of the range of legal mechanisms available to an agency to respond on remand might helpfully contribute to the literature on mechanism choice generally,⁴⁵ and to improved understanding of how agencies are likely to respond in different remand contexts.⁴⁶

A fourth variable that may influence agency decisionmaking on remand involves the particular strategies or tools an agency is interested in advancing. For example, in its Next Gen initiative EPA identified several tools that it believes will promote improved compliance.⁴⁷ On remand of a rule that proposes to incorporate one or more of such tools, EPA may well consider the range of tools it is seeking to use, and the relative value of each such tool in connection with the particular rule involved. Thus, EPA's response to a remand may depend on the agency's assessment of the costs and benefits of employing one or more of the range of tools the agency is interested in deploying. In short, my hypothesis is that the particular mix of substantive goals an agency is seeking to advance may influence its

situation depending on the circumstances. Any decisions regarding a particular water will be based on the applicable statutes, regulations, and case law.

Id. at 4 n.17.

43. See Definition of "Waters of the United States" Under the Clean Water Act, 79 Fed. Reg. 22,188 (Apr. 21, 2014) (codified at 33 C.F.R. § 328 (2017) (notice of proposed rulemaking); Clean Water Act Rule: Definition of "Waters of the United States," 80 Fed. Reg. 37,054 (June 29, 2015) (codified at 33 C.F.R. § 328 (2017) (final regulations). On October 9, 2015, the U.S. Court of Appeals for the 6th Circuit stayed the Waters of the United States rule. In re E.P.A., 803 F.3d 804, 808-09 (6th Cir. 2015). On February 28, 2017, President Trump signed Exec. Order No. 13,778, 82 Fed. Reg. 41 (March 3, 2017), which directs EPA to review the Waters of the United States Rule.

44. Glicksman & Hammond, *supra* note 9, at 501-03.

45. For examples of this literature, see, e.g., Emily Hammond Meazell, *Deference and Dialogue in Administrative Law*, 111 COLUM. L. REV. 1722, 1739 (2011); Peter Schuck & E. Donald Elliot, *To the Chevron Station: An Empirical Study of Federal Administrative Law*, 1990 DUKE L.J. 984; Wendy Wagner, *Revisiting the Impact of Judicial Review on Agency Rulemakings: An Empirical Investigation*, 53 WM. & MARY L. REV. 1717 (2012).

46. For an effort to explore agency mechanism choice in this way, see Markell & Glicksman, *Unraveling the Administrative State*, *supra* note 25.

47. See Cynthia Giles, *Next Generation Compliance*, ENVTL. F. 22 (Sept.-Oct. 2013); see also David A. Hindin & Jon D. Silberman, *Designing More Effective Rules and Permits*, 7 GEO. WASH. J. ENERGY & ENVTL. L. 103 (2016); David L. Markell & Robert L. Glicksman, *Next Generation Compliance*, 30 NAT. RESOURCES & ENV'T 22 (2016).

response on remand.⁴⁸ As a result, close attention to such goals may also produce helpful insights concerning how agencies are likely to respond on remand.

In conclusion, one of the important challenges for the extensive literatures that grapple with the structure and operation of the administrative state is to improve understanding of why agencies act as they do when, as is often the case, they enjoy considerable autonomy or discretion. The aim of the 2016 Florida State University College of Law *Environmental Law Without Courts* Symposium, and the articles comprising this issue of the *Journal of Land Use and Environmental Law*, including the helpful contribution by Professors Glicksman and Hammond and this Comment, is to contribute to the effort to build an improved understanding of this foundational feature of the administrative state.

48. This feature is related to Glicksman and Hammond's concept of valence. See Glicksman & Hammond, *supra* note 9, at 503.

AGENCY INNOVATION IN *VERMONT YANKEE'S* WHITE SPACE

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I. INTRODUCTION

The literature on “agency discretion” has, with a few notable exceptions,¹ largely focused on substantive policy discretion,² not procedural discretion.³ In this essay, we seek to refocus debate on the latter, which we argue is no less worthy of attention. We do so by defining the parameters of what we call *Vermont Yankee’s* “white

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1. See, e.g., Adrian Vermeule, *Deference and Due Process*, 129 HARV. L. REV. 1890, 1919 (2016) (offering a compelling theoretical justification for judicial deference to agency decisions about procedure); see also Thomas O. McGarity, *Substance and Procedural Discretion in Administrative Resolution of Science Policy Questions: Regulating Carcinogens in EPA and OSHA*, 67 GEO. L.J. 729 (1979) (arguing that formal procedures are not necessary to resolve technical questions related to the regulation of carcinogens).

2. See, e.g., J.B. Ruhl & Kyle Robisch, *Agencies Running from Agency Discretion*, 58 WM. & MARY L. REV. 97 (2016) (exploring agency reluctance to exercise discretion under the Endangered Species Act and the National Environmental Policy Act); Jody Freeman & David B. Spence, *Old Statutes, New Problems*, 163 U. PA. L. REV. 1 (2014) (discussing agencies' strategic use of existing statutory authority to tackle novel problems). See also Ming H. Chen, *Beyond Legality: The Legitimacy of Executive Action in Immigration Law*, 66 SYRACUSE L. REV. 87 (2016) (examining the legitimacy of expansive executive actions under existing immigration statutes); Daniel T. Deacon, *Administrative Forbearance*, 125 YALE L.J. 1548 (2016) (describing congressional delegations of authority permitting an agency to forbear from implementing statutory provisions).

3. Notable exceptions include Elizabeth Magill's work on agencies' discretion to make policy by rulemaking or adjudication, M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383 (2004), and Adrian Vermeule's recent essay exhorting and defending judicial deference to agency procedural choices. See Vermeule, *supra* note 1. Vermeule provides a detailed review of existing doctrine on agency freedom to determine what process is due under the Fifth Amendment. *Id.* at 1890–95. Vermeule then defends less-intrusive rationality review for these choices as consistent with both Dworkinian principles of coherence and Elyian ideas about representation-reinforcement. *Id.* at 1911, 1923. Fundamentally, Vermeule's essay focuses on the institutional allocation of authority to determine the outer boundaries of agency procedural discretion that are established by constitutional norms. *Id.* at 1893–95. In this essay, we seek to expand the analysis of agency procedural discretion beyond constitutional bounds to include statutory, executive, and non-legal limits, thereby providing a fuller picture of the phenomenon.

space”—the scope of agency discretion to experiment with procedures within the boundaries established by law (and thus beyond the reach of the courts).⁴ Our goal is to begin a conversation about the dimensions of this procedural negative space, in which agencies are free to experiment with new approaches without judicial oversight. We also explore some of the ways in which energy and environmental agencies are innovating within these boundaries.

Process matters. In discussing the *Vermont Yankee* decision, then-Professor Antonin Scalia wrote of “the indissoluble link between procedure and power.”⁵ Indeed, the power to design process is in many cases the power to dictate, or at least to affect, substantive outcomes. Procedural innovation can therefore be an important tool for agencies seeking to fulfill their statutory mandates.

Part II briefly expands on the scope of the project. Part III then shifts from abstraction to specifics, examining ways in which the Environmental Protection Agency (EPA) and the Federal Energy Regulatory Commission (FERC) have exploited their considerable freedom to experiment with process. Much has been made of the ways in which these agencies are using aging statutory mandates to address modern problems.⁶ We note the same trend but propose that focusing on substantive policies tells only part of the story. Energy and environmental agencies are also moving beyond procedural minima to take advantage of, for example, new technologies and developments in organizational theory. These procedural innovations are enabling the agencies to achieve goals more efficiently and effectively and to emphasize aspects of their mandates that they, in their expert judgment, find to be most significant.

Parts IV and V—the heart of the essay—enumerate six categories of limitation on procedural discretion: constitutional, statutory, judicial, executive, administrative (as where an agency limits its

4. *Vermont Yankee* held that courts may generally not impose procedural requirements on agencies beyond those contained in the APA or their authorizing statutes. *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 524 (1978) (noting “the very basic tenet of administrative law that agencies should be free to fashion their own rules of procedure”). That ruling was recently reaffirmed in the *Mortgage Bankers* case, in which the Supreme Court reversed a line of D.C. Circuit cases requiring agencies to submit revised interpretations of their own rules to notice and comment. *Perez v. Mortg. Bankers Ass'n*, 135 S. Ct. 1199, 1206 (2015). In reversing the D.C. Circuit, the Court noted that the D.C. Circuit doctrine “improperly imposes on agencies an obligation beyond the APA’s maximum procedural requirements.” *Id.* at 1201; see also *New Life Evangelistic Ctr., Inc. v. Sebelius*, 753 F. Supp. 2d 103, 121 (D.D.C. 2010) (noting that “agencies are, of course, free to adopt additional procedures as they see fit”).

5. Antonin Scalia, *Vermont Yankee: The APA, the D.C. Circuit, and the Supreme Court*, 1978 SUP. CT. REV. 345, 346 (1978).

6. See, e.g., Joel B. Eisen, *FERC’s Expansive Authority to Transform the Electric Grid*, 49 U.C. DAVIS L. REV. 1783 (2016) (noting both the history of and new opportunities for assertion of FERC’s authority under existing statutes); Freeman & Spence, *supra* note 2; Daniel J. Fiorino, *Streams of Environmental Innovation: Four Decades of EPA Policy Reform*, 44 ENVTL. L. 723 (2014) (describing policy innovations at EPA across four decades).

own discretion), and non-legal. In Part IV, we touch briefly on constitutional considerations, which have been thoroughly explored by Vermeule and others.⁷ We then consider how the Administrative Procedure Act (APA) and various other statutes may limit an agency's discretion to adopt innovative procedures. Next, we explore separate requirements imposed by the courts, notwithstanding *Vermont Yankee's* admonition that courts may not require agencies to adopt procedures beyond those enumerated in the APA. Finally, we turn to procedural constraints originating with the President. In Part V, we argue that the absence of significant legal limitations does not necessarily invite arbitrary procedural decisionmaking. In this Part, we address two types of limitation on procedural discretion that are less well studied: agencies' self-imposed constraints and non-legal constraints. We conclude by inviting additional research into the scope and uses of agency procedural discretion.

II. THE PROCESS/SUBSTANCE DICHOTOMY

To make any argument about the scope of agency procedural discretion it is first necessary to define our terms. When we propose a category of "procedural" discretion, we do not mean to argue that the line between substance and process is always a clear one. However, the categories are at least conceptually distinct and we find that there are enough "easy cases" to preserve the utility of the distinction.

Here, we start with the definition of "procedural rules" proposed by Larry Solum, who analogizes them to H.L.A. Hart's "secondary rules": those that define institutional powers to make laws and rules (as opposed to primary rules, which require people to do or abstain from doing certain things).⁸ This definition distinguishes between the so-called "rules of the legal game"—the rules that apply to actors inside legal institutions—and the rules of conduct that apply to members of the general public.⁹ We note that this definition is broad enough to include agency rules of practice that shape the conduct of members of the regulated community and the public, not in their substantive activities, but in their interactions with the agency itself.

We find support for this definition in the APA's distinction between so-called legislative rules and "rules of agency organization, procedure, or practice."¹⁰ In distinguishing between the two,

7. See *supra* note 1.

8. Lawrence B. Solum, *Procedural Justice*, 78 S. CAL. L. REV. 181, 208–09 (2004).

9. *Id.*

10. Administrative Procedure Act, 5 U.S.C. § 553(b)(3)(A) (2012).

the D.C. Circuit employs a “functional analysis” rather than obsessing about labels.¹¹ The main purpose of the distinction is to ensure “that agencies retain latitude in organizing their *internal* operations.”¹² Thus, “the exemption’s critical feature is that it covers agency actions that do not themselves alter the rights or interests of parties, although it may alter the manner in which the parties present themselves or their viewpoints to the agency.”¹³

But let us move from the abstract to the concrete. We subdivide agency “procedures” into two categories of rules. First, such procedures include rules that govern the agency’s *internal* operations, including rules governing commission voting, for example, or structuring collaboration with other agencies. We also conclude that such *internal* rules include decisions about how to allocate scarce resources, including but not limited to enforcement prioritization.¹⁴ Second, they include *external* rules to the extent that those rules govern interactions between the public and the agency. Examples here are rules for participation in rulemaking, for submitting license applications, and the like.¹⁵

Procedural choices are inextricably intertwined with substantive ends. Procedures that increase agency transparency or facilitate public involvement in agency decisionmaking may serve democratic and participatory goals. Procedures that induce additional deliberation or reliance on expert opinion by agency decisionmakers may serve the goal of nonarbitrary government decisionmaking. And procedures that speed up decisionmaking processes may serve efficiency goals. In fact, if you push on any procedural rule, you will

11. *Air Transp. Ass’n of Am. v. Dep’t of Transp.*, 900 F.2d 369, 376 (D.C. Cir. 1990).

12. *Batterton v. Marshall*, 648 F.2d 694, 707 (D.C. Cir. 1980) (emphasis added).

13. *Id.* Other circuit courts have similar rules. *See, e.g.*, *Brown Express, Inc. v. United States*, 607 F.2d 695, 702 (5th Cir. 1979) (identifying legislative rules as those that have “a *substantial impact* on the regulated industry, or an important class of the members or the products of that industry”). This definition recalls the *Erie* test for distinguishing between process and substance, most recently articulated in the Supreme Court’s decision in *Shady Grove*. *Shady Grove Orthopedic Assocs. v. Allstate Ins. Co.*, 559 U.S. 393, 407 (2010) (stating “[w]hat matters is what the rule itself regulates, and if it governs only the manner and the means by which the litigants’ rights are enforced, it is [procedural], but if it alters the rules of decision by which the court will adjudicate those rights, it is [substantive]”).

14. Courts analyzing APA section 553’s exception for procedural rules have reached a similar conclusion. *See, e.g.*, *Am. Hosp. Ass’n v. Bowen*, 834 F.2d 1037, 1057 (D.C. Cir. 1987) (holding that a series of agency directives and manuals defining enforcement strategy of review boards was covered by the exception).

15. When political scientists talk about the congressional manipulation of agency process as a mechanism of control, they sometimes include structural features in that definition. *See, e.g.*, Kathleen Bawn, *Political Control Versus Expertise: Congressional Choices About Administrative Procedures*, 89 AM. POL. SCI. REV. 62, 62 (1995) (including in the definition of procedure such design features as “which agency makes the decision, how the agency is organized, what qualifications are required for key personnel, and how the agency relates to the rest of the bureaucracy”). However, because our perspective is internal to the agency, and because agencies frequently have little to no control over such structural attributes, we do not include them in the discussion here.

find a substantive policy underlying it.¹⁶ This suggests not that the line between procedure and substance is not worth drawing, but that we should be attentive to the substantive consequences of procedural rules. Indeed, that is why procedural discretion matters: process choices not only reflect but further substantive values.¹⁷

III. PROCEDURAL INNOVATION AT EPA AND FERC

Because of the values it serves and because of its substantive effects, procedural innovation should not be overlooked. And agencies do experiment with procedure, as a series of examples from two key environmental and energy agencies should make plain. We first explore three innovations at the Environmental Protection Agency (EPA), which has tended to exercise its procedural discretion to increase understanding about the agency's activities as well as to expand the impact of its work. Meanwhile, the Federal Energy Regulatory Commission (FERC) has adopted unconventional strategies for improving the quality of its regulatory product.

EPA has been highly innovative when it comes to the agency's public outreach and educational efforts. For example, EPA held "listening sessions" across the country during the roll-out of its proposed Clean Power Plan rule, which imposes greenhouse gas emissions limits on existing power plants.¹⁸ Stakeholders selected for their "expertise in the Clean Air Act standard-setting process" were invited to participate in roundtable discussions to provide feedback on the proposed rule. Transcripts and recordings of the meetings were made available to the public.¹⁹ Such sessions are not legally required, but so long as they do not run afoul of *ex parte* requirements, they do not violate existing law.²⁰ This additional discussion with stakeholders, above and beyond what is required by the notice-and-comment process in the APA and by other statutes, can improve the substance of final rules as well as generate public buy-in for agency actions.

16. Relatedly, as the Court noted in *Shady Grove*, most procedural rules do affect federal litigants' substantive rights. *Shady Grove*, 559 U.S. at 407.

17. See Frank H. Easterbrook, *Substance and Due Process*, 1982 SUP. CT. REV. 85, 85 (1982) (arguing that procedures that protect against deprivation of a substantive right effectively describe the strength of that right).

18. *Clean Power Plan: Past Listening Sessions*, ENVTL. PROT. AGENCY, <https://www.epa.gov/cleanpowerplan/past-listening-sessions> (last visited Apr. 18, 2017). The Clean Power Plan, of course, is now tied up in the courts and its fate remains uncertain. Order Granting Application for a Stay at 1, *Chamber of Commerce v. EPA* (2016) (No. 15A787), https://www.supremecourt.gov/orders/courtorders/020916zr3_hf5m.pdf.

19. *Clean Power Plan: Past Listening Sessions*, *supra* note 18.

20. EPA has its own internal rules governing *ex parte* contacts. ENVTL. PROT. AGENCY, "EX PARTE" CONTACTS IN EPA RULEMAKING (1985) (requiring that all comments and any information likely to affect the final decision be placed in the public record).

EPA has also been innovative when it comes to publicizing its rules and programs via the Internet and social media.²¹ Such efforts are “procedural” in that they do not alter the substance of EPA’s programs, merely the form of their dissemination. And EPA’s statutes do not specifically require the agency to engage in such outreach efforts.²² Annual appropriations acts tend to prohibit EPA from using appropriated funds for propaganda or lobbying purposes, and the agency has sometimes run afoul of these prohibitions in expanding its social media presence.²³ However, other aspects of EPA’s campaigns have survived legal scrutiny, including its expenditure of nearly \$65,000 on video and graphics to promote its “Waters of the United States” rule that refined EPA jurisdiction over navigable waters.²⁴ By reaching out to the public on modern technology platforms, EPA is encouraging increasing understanding of its programs as well as promoting civic engagement.

EPA has also exercised what might be called, in a nod to Daphna Renan, intra-agency power “pooling”²⁵: the concentration of various substantive agency authorities to achieve more powerful results. In its “Making a Visible Difference in Communities” program, EPA targets “environmentally overburdened, underserved, and economically distressed areas where the needs [for support] are greatest.”²⁶ The agency then draws on its diverse expertise and authority in, for example, remediation of polluted sites, redevelopment of brownfields, stormwater and waste management, and collection and dissemination of environmental quality data, to mitigate environmental harms in those areas.²⁷ The focusing of such efforts within a single community to achieve broader health and sustainability goals demonstrates the power of procedural decisions, in this case resource allocation, to support substantive aims.

21. Elizabeth Porter and Kathryn Watts have written about one aspect of these efforts: the use of visual media to enhance communication. Elizabeth G. Porter & Kathryn A. Watts, *Visual Rulemaking*, 91 N.Y.U. L. REV. 1183 (2016). See also Stephen M. Johnson, *#BetterRules: the Appropriate Use of Social Media in Rulemaking*, FLA. ST. U. L. REV. (forthcoming 2017) (discussing the limits legal limits on EPA’s use of social media).

22. However, statutory support for these activities may be found in both the National Environmental Education Act of 1990 and in the E-Government Act of 2002. National Environmental Education Act, 20 U.S.C. §§ 5501–5510 (1990); E-Government Act of 2002, 44 U.S.C. §§ 101, 3501, 3601, 41 U.S.C. § 266a.

23. U.S. GOV’T ACCOUNTABILITY OFFICE, B-326944, LETTER TO SENATOR JAMES INHOFE, ENVIRONMENTAL PROTECTION AGENCY—APPLICATION OF PUBLICITY OR PROPAGANDA AND ANTI-LOBBYING PROVISIONS (2015).

24. *Id.* at 2.

25. See Daphna Renan, *Pooling Powers*, 115 COLUM. L. REV. 211 (2015) (arguing that presidents can exploit joint agency activities to expand their own powers).

26. *Smart Growth: Making a Visible Difference in Communities*, ENVTL. PROT. AGENCY, <https://www.epa.gov/smartgrowth/making-visible-difference-communities> (last visited Apr. 18, 2017).

27. *Id.*

EPA is not alone in its procedural innovation. FERC, which unlike EPA operates as an independent commission, is the nation's regulator of wholesale electric energy and natural gas, among other responsibilities. The agency has been in the news over the last several decades for its substantive policy innovations. Perhaps most significantly, it has used existing statutory authority to restructure both wholesale natural gas and electricity sales to more closely resemble a free market.²⁸ But FERC's procedures, while perhaps less likely to capture the public imagination, are also worthy of regard. This section will describe three innovative procedures at FERC that are deserving of greater attention. The first two are procedures for better ventilation of ideas and strategy early on in agency processes. The last concerns error-correction within the agency prior to legal challenge in court.

First are technical conferences. These are public meetings during which invited panelists make presentations to the commission on topics of the commission's choosing. Such conferences are not required as part of the rulemaking process, either by the APA or under the various energy statutes that FERC implements. The conferences may relate to an ongoing rulemaking or simply to a matter about which the commission desires to know more.²⁹ The agency will typically issue notice of the technical conference as part of the relevant docket along with a description of the topics to be addressed and questions to frame the discussion. The conferences are open to the public and are frequently made available via webcast and archived for several months.³⁰

Technical conferences are a valuable mechanism for both gathering information from stakeholders and for giving those stakeholders insight into policies the agency is considering prior to more formal agency action. For example, technical conferences can provide a forum for discussing priorities in areas of overlapping jurisdiction.³¹ In terms of the input participants are afforded, these

28. See Pipeline Service Obligations and Revisions to Regulations Governing Self-Implementing Transportation Under Part 284 of the Commission's Regulations, 59 FERC ¶ 61,030 (1993). Promoting Wholesale Competition Through Open Access Nondiscriminatory Transmission Service by Public Utilities; Recovery of Stranded Costs by Public Utilities and Transmitting Utilities, 75 FERC ¶ 61,080 (1996).

29. See, e.g. FERC, Technical Conference to Discuss Competitive Transmission Development Rates (Docket No. AD16-18000) (June 27–28, 2016); Technical Conference to Discuss Implementation Issues Under the Public Utility Regulatory Policies Act of 1978 (Docket No. AD16-16-000) (June 29, 2016).

30. Archived webcasts are available at *FERC Live Video & Audio Webcasts and Archives*, FERC, <http://ferc.capitolconnection.org/> (last accessed Apr. 18, 2017).

31. See Julia E. Sullivan, *The Intersection of Federally Regulated Power Markets and State Energy and Environmental Goals*, 26 FORDHAM ENVTL. L. REV. 474, 475 (2015) (citing Notice of Joint Technical Conference, *Joint Technical Conference on N.Y. Mkts. &*

conferences fall midway between negotiated rulemaking, which involves participants much more actively in rule formation,³² and EPA's webinar series, which educates participants about preliminary or final rules after those rules are published.

Second, FERC offers pre-filing meetings during which potential parties may review their draft filings with FERC staff prior to submitting them formally to the agency. Parties who may wish to avail themselves of this option include companies submitting rate filings as well as consumers wishing to file a complaint against a utility. Nothing in the agency's governing statutes or rules requires them to offer this service. However, the meetings are useful on both sides. Companies or consumers are able to incorporate changes suggested by the agency that can improve the quality of their filings. And the agency itself can get a better feel for the precise nature of the results sought than they could glean from paper filings alone. Thus, they are better able to process the filings once submitted.³³

Finally, FERC frequently adds another stage to the standard rulemaking process: rehearings that often result in issuances of revised rules. Both the Federal Power Act and the Natural Gas Act require potential litigants to seek rehearing at the agency before challenging a FERC action in court. But neither statute requires the agency to grant these requests. Over the years, however, FERC has been inclined to grant such petitions so long as they raise plausible questions about an aspect of a rule's validity or desirability. Doing so has become part of the agency culture, and it is common for complex or controversial rulemakings to be issued in successive iterations with titles such as "Rule 719-A," "Rule 719-B," and so on.

Rehearing can be helpful to industry and other parties if it creates greater certainty as to the scope and meaning of the underlying rule. However, the advantages of rehearing do not accrue solely to stakeholders. For the agency, rehearing provides an opportunity to clarify aspects of the underlying rule or to correct mistakes. These clarifications might either avoid litigation or strengthen the agency record so that the rule is more likely to survive a challenge

Infrastructure, No. AD14-18-000 (F.E.R.C. Sept. 17, 2014) <https://www.ferc.gov/EventCalendar/EventDetails.aspx?ID=7531&CalType=&CalendarID=116&Date=11/05/2014&View=Listview>, archived at <http://perma.cc/V526-TMGQ>).

32. For an overview of negotiated rulemaking, see Cary Coglianese, *Assessing Consensus: The Promise and Performance of Negotiated Rulemaking*, 46 DUKE L.J. 1255 (1997) (finding that negotiated rulemaking fails to improve agency timeliness or reduce litigation).

33. Information about this process comes from conversations with senior FERC staff. FERC has interpreted these meetings as fully consistent with the agency's Ex Parte Rule, Order 607, 88 FERC ¶ 61,225 (1999), which prohibits only off-the-record communications with decisional employees after the commencement of any contested, "on the record," trial-type proceedings. See *MidAmerican Energy Holdings Co., et al.*, 118 FERC ¶ 61,003, 61,007-10 (2007).

in court. While rehearing is itself costly in terms of time and resources, it may avoid the even greater costs associated with litigation.

None of the innovations discussed in this section are required by law, but neither are they prohibited by it. They were enacted in the discretionary space beyond the law's procedural minima. While no individual process may be radical, collectively these adjustments and innovations can facilitate achievement of an agency's substantive goals over time. But how much room do agencies actually have to innovate in this space? It is to that question that the next Part turns.

IV. THE LEGAL BOUNDARIES OF AGENCY PROCEDURAL DISCRETION

To understand the realm of agency procedural discretion, we must begin by identifying its outer boundaries. These boundaries are established, first and foremost, by the law, which imposes various limitations on the ability of an administrative agency to design its own procedures. There are four key sources of legal limitations on agency procedural discretion: the Constitution, statutes, judicial precedent, and executive edicts. Within these boundaries, administrative agencies are typically afforded substantial latitude to design their own procedures, subject to minimal judicial intervention.

The Constitution is the foundational legal restriction on government action generally, and its minimum requirements apply in the administrative context. Key for our purposes here is the well-established principle that agencies must observe the requirements of constitutional due process in designing administrative procedures.³⁴ These constitutional requirements are modest, but agencies must consider them in the procedural design process. Agencies may even have an independent duty to “interpret and implement the U.S. Constitution,” a phenomenon that has been referred to as “administrative constitutionalism.”³⁵ An agency designing its

34. See *Mathews v. Eldridge*, 424 U.S. 319, 332 (1976); *Goldberg v. Kelly*, 397 U.S. 254 (1970).

35. Agencies are thus required to “interpret and implement the U.S. Constitution,” a phenomenon that has been referred to as “administrative constitutionalism.” See Gillian E. Metzger, *Administrative Constitutionalism*, 91 TEX. L. REV. 1897, 1897 (2013); WILLIAM N. ESKRIDGE JR. & JOHN FERREJOHN, *A REPUBLIC OF STATUTES: THE NEW AMERICAN CONSTITUTION* 26–27 (2010); Elizabeth Fisher, *Food Safety Crises as Crises in Administrative Constitutionalism*, 20 HEALTH MATRIX 55 (2010); Sophia Z. Lee, *Race, Sex, and Rulemaking: Administrative Constitutionalism and the Workplace, 1960 to the Present*, 96 VA. L. REV. 799, 801 (2010); see also Bertrall L. Ross II, *Embracing Administrative Constitutionalism*, 95 B.U. L. REV. 519, 529 (2015) (“Agencies’ constitutional value judgments, made in the process of interpreting statutes, are what I define as ‘administrative constitutionalism.’”).

procedures must therefore first consider the minimum requirements imposed by the Fifth Amendment's Due Process Clause.³⁶ The Due Process Clause applies only if an agency's action threatens to deprive an individual of an interest in life, liberty, or property.³⁷ In such circumstances, the minimum procedures due to the individual, as well as the timing of those procedures (e.g., pre- or post-deprivation), are determined based on a flexible and context-specific evaluation of the agency action in question.³⁸ Relatively few administrative disputes are resolved on due process grounds, however, and thus other sources of legal limitation on agency procedural design play a more significant role in shaping agency procedural design and experimentation.³⁹

Moving beyond the Constitution, a key source of statutory restriction on agency procedural discretion is the APA. There are two possible interpretations of how the APA affects agency procedural discretion. First, the APA may be understood as a skeletal framework that establishes only minimum procedural requirements against a background norm of agency procedural discretion.⁴⁰ So interpreted, the APA establishes only a "floor" for administrative procedures. Agencies are empowered to impose more restrictive, detailed, or additional procedures beyond those contained in the APA, provided that the statutory minimum is observed.⁴¹ Second, the APA might instead be understood as a statute designed to produce procedural uniformity across agencies.⁴² Achieving uniformity would require an interpretation of the APA as more restric-

36. See U.S. CONST. AMEND. V, § 4. The Due Process Clause is central to our analysis because we are focused on administrative procedure. But administrative constitutionalism occurs under many other constitutional provisions as well. *E.g.*, SOPHIA Z. LEE, *THE WORKPLACE CONSTITUTION FROM THE NEW DEAL TO THE NEW RIGHT* (2014) (examining how the National Labor Relations Board and the Federal Communications Commission interpreted and implemented the Fifth Amendment's Equal Protection Clause); *FCC v. Fox Television Stations, Inc.*, 132 S. Ct. 2307 (2012) (examining the FCC's scheme for regulating speech, which required the agency to consider limitations imposed by the First Amendment).

37. *Ingraham v. Wright*, 430 U.S. 651, 672–74 (1977).

38. See generally RICHARD J. PERCE, JR., SIDNEY A. SHAPIRO & PAUL R. VERKUIL, *ADMINISTRATIVE LAW AND PROCESS* § 6.3 (6th ed. 2014).

39. *Id.* at 206.

40. *E.g.*, *Citizens Awareness Network, Inc. v. United States*, 391 F.3d 338, 349 (1st Cir. 2004) ("The APA lays out only the most skeletal framework for conducting agency adjudications, leaving broad discretion to the affected agencies in formulating detailed procedural rules.").

41. See, e.g., Energy Bar Association, *Report of the Committee on Ethics*, 12 ENERGY L.J. 421, 426 (1991) (explaining that FERC's rules limiting certain types of *ex parte* communications "are more restrictive than under the APA, but this is permissible because the APA establishes a floor, not a ceiling, for prohibited *ex parte* communications").

42. See, e.g., *Dickinson v. Zurko*, 527 U.S. 150, 155 (1999) ("The APA was meant to bring uniformity to a field full of variation and diversity.").

tive, imposing not only a “floor” but also a “ceiling” for administrative procedures.⁴³ Under this interpretation, agencies must not only meet the APA’s minimum requirements, but their discretion to deviate from the procedures established by the statute would be restricted. It is also possible, of course, that the APA should not be interpreted monolithically, and that some provisions of the APA may be interpreted to establish a floor, while others may be interpreted to establish both a floor and a ceiling.⁴⁴

In recent decades, however, courts and scholars have increasingly understood the APA according to the first approach: as a skeletal framework that leaves substantial latitude for agency procedural innovation.⁴⁵ There is some evidence that, at least with respect to certain discrete subjects, this consensus marks a shift away from a contrary view that dominated in the decades immediately following the APA’s enactment.⁴⁶ For example, such a shift has

43. On this point, institutional context matters. For example, *Vermont Yankee* has been described as holding that the APA’s informal rulemaking provisions establish both a floor and a ceiling. See David Fontana, *Reforming the Administrative Procedure Act: Democracy Index Rulemaking*, 74 *FORDHAM L. REV.* 81, 126 (2005). But what is typically meant by this is that the APA’s informal rulemaking provisions establish a ceiling from a *judicial* perspective, such that it is inappropriate for the courts to impose upon agencies procedural requirements beyond those found in the statute. Laura Anzie Nelson, *Delineating Deference to Agency Science: Doctrine or Political Ideology?*, 40 *ENVTL. L.* 1057, 1070 n.90 (2010). From the *administrative* perspective, the APA’s informal rulemaking provision establishes only a floor, such that agencies may voluntarily choose to observe additional procedures. See, e.g., *Chrysler Corp. v. Brown*, 441 U.S. 281, 312 (1970) (“In *Vermont Yankee* . . . we held that courts could only in ‘extraordinary circumstances’ impose procedural requirements on an agency beyond those specified in the APA. It is within an agency’s discretion to afford parties more procedure, but it is not the province of the courts to do so.”); Admin. Conf. of the U.S., Recommendation 76-3, *Procedures in Addition to Notice and the Opportunity for Comment in Informal Rulemaking*, 41 *Fed. Reg.* 29,654 (July 19, 1976) (encouraging agencies to voluntarily observe notice and comment procedures beyond those contained in the APA).

44. Gillian E. Metzger, *Embracing Administrative Common Law*, 80 *GEO. WASH. L. REV.* 1293, 1300 (2012) (“[A] fundamental compromise underlying the APA was that Congress imposed greater procedural rigor and judicial scrutiny only on more formal agency proceedings, leaving less formal proceedings, such as notice and comment rulemakings, subject to minimal constraints.”). It is also worth noting that a general understanding of the APA’s purpose and operation might emerge only piece-by-piece, as individual provisions addressing distinct subjects are examined by courts and commentators. See *infra* notes 9 and 10 and accompanying text.

45. See, e.g., *Climax Molybdenum Co. v. Sec’y of Labor*, 703 F.2d 447, 451 (10th Cir. 1983) (“[A]dministrative agencies retain substantial discretion in formulating, interpreting, and applying their own procedural rules.” (citing *Am. Farm Lines v. Black Ball Freight Serv.*, 397 U.S. 532, 539 (1970)); M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 *U. CHI. L. REV.* 1383, 1439 (2004) (“The skeletal provisions of the APA that governed informal rulemaking required no elaborate process.”); Peter M. Shane, *Federal Policy Making by Consent Decree: An Analysis of Agency and Judicial Discretion*, 1987 *U. CHI. LEGAL F.* 241, 264 (1987); James V. DeLong, *New Wine for a New Bottle: Judicial Review in the Regulatory State*, 72 *VA. L. REV.* 399, 445 (1986) (“The APA’s judicial review formula has served admirably for forty years, but it provides no more than a skeletal framework for control of agency action.”).

46. But see Jennifer Nou, *Regulating the Rulemakers: A Proposal for Deliberative Cost-Benefit Analysis*, *YALE L. & POL’Y REV.* 601, 617 (2008) (“Facilitating implementation, the drafters of the APA were clear that its minimal procedural requirements were not a ceiling but a floor.”). There is also some evidence that Congress intended the APA to establish only

occurred in connection with the APA's provision authorizing federal agencies to issue declaratory orders "to terminate a controversy or remove uncertainty."⁴⁷ Due to this provision's placement in the section of the APA governing formal adjudication, courts and commentators for many decades took the view that declaratory orders were available only in formal adjudication.⁴⁸ Over the last several decades, however, the courts have quietly abandoned this approach, allowing agencies to issue declaratory orders (1) without first conducting a "hearing on the record" and (2) to address matters not subject by statute to formal adjudication under the APA.⁴⁹ This change in how the declaratory orders provision is understood has not occurred wholly in isolation, but rather seems to reflect a broader shift in how the APA is understood and applied.⁵⁰

Beyond the APA are other statutes, both trans-substantive and subject-specific, that may also confine agency procedural discretion.⁵¹ Trans-substantive statutes such as the Freedom of Information Act, the Federal Advisory Committee Act, and the Government in the Sunshine Act, for example, limit an agency's ability to shield its deliberations and its written materials from public view.⁵² The National Environmental Policy Act (NEPA) requires all federal agencies to assess the effects of actions that may have a significant impact on the human environment.⁵³ And the Endangered Species Act requires federal agencies to consult with either the Fish and Wildlife Service or the National Oceanic and Atmospheric Administration before taking actions that could jeopardize the continued

a minimum, but that it expected that courts and not agencies would be the relevant institutional actors establishing requirements above the statutory minimum. *See* Kenneth Culp Davis, *Administrative Common Law and the Vermont Yankee Opinion*, 1980 UTAH L. REV. 3, 12 (1980) (explaining that the Senate "must have meant that courts could add to the [APA's minimum] requirements, for a statement that an agency imposes 'requirements' on itself is unnatural.").

47. 5 U.S.C. § 554(e) (2012).

48. *See* TOM C. CLARK, UNITED STATES DEP'T OF JUSTICE, ATTORNEY GENERAL'S MANUAL ON THE ADMINISTRATIVE PROCEDURE ACT 59 (Reprint ed. 1973); Emily S. Bremer, *The Agency Declaratory Order*, OHIO ST. L.J. 19–24 (forthcoming 2017), available at https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2955214.

49. *See* Weinberger v. Hynson, 412 U.S. 609, 624–25 (1973); *Am. Airlines, Inc. v. Dep't of Transp.*, 202 F.3d 788, 796–97 (5th Cir. 2000); *see also* Admin. Conf. of the U.S., Recommendation 2015-3, *Declaratory Orders*, 80 Fed. Reg. 78,163 (Dec. 16, 2015) (urging agencies to use declaratory orders more frequently and creatively and suggesting best practices and procedures in declaratory proceedings).

50. *See supra* note 46.

51. A commonly cited example is hybrid rulemaking requirements, which Congress has imposed upon individual agencies such as the Federal Trade Commission. *See* Magnuson-Moss Warranty—Federal Trade Commission Improvement Act, Pub. L. No. 93-637, 88 STAT. 2183 (Jan. 4, 1975).

52. Freedom of Information Act, 5 U.S.C. § 552 (2012); Government in the Sunshine Act, 5 U.S.C. § 552b (2012).

53. National Environmental Policy Act, 42 U.S.C. § 4321 (2012).

existence of any endangered or threatened species.⁵⁴ Agency-specific statutes may also impose restrictions. The Federal Power Act, for example, contains a series of specific requirements governing rate challenges and hearings.⁵⁵ And the Clean Air Act requires that specific procedures be followed in the summoning of witnesses to testify in agency proceedings.⁵⁶

These statutory requirements are often understood to operate in a manner similar to the APA, in the sense that they are viewed as establishing procedural floors, not ceilings (except in specific cases where Congress has clearly indicated the converse).⁵⁷ The fact that NEPA established a floor rather than a ceiling for procedures to evaluate environmental impacts, for example, may be seen in its compatibility with state environmental assessment statutes (sometimes called mini-NEPAs), some of which go beyond NEPA's own requirements.⁵⁸ Like the APA, then, these statutes typically leave agencies free to experiment with procedures that elaborate upon the statutory minima. Furthermore, that Congress has repeatedly enacted these statutes imposing upon individual agencies unique requirements not found in the APA suggests some acceptance or expectation that there will be at least some variation in agency procedures, even for similar activities.⁵⁹

A third source of legal restrictions on agency procedural discretion is judicial precedent. Courts have a significant role in interpreting the APA and other procedural statutes, and two variants of legal restriction on agency procedural discretion may arise from the judiciary's fulfillment of that role. First, judicial precedent may simply interpret and apply statutory requirements in a manner that displaces agency interpretation. Second, and more controversial, is what is termed "administrative common law," which arises when courts create procedural requirements that are not found in applicable statutes.⁶⁰ Administrative common law is controversial in part

54. 16 U.S.C. § 1536 (2012). Agencies must also cooperate to the maximum extent practicable with states before acquiring land or water to preserve endangered or threatened species. *Id.* § 1535.

55. *See, e.g.*, 16 U.S.C. § 824e(a) (2012) (requiring commission to fix by order the time and place of a rate hearing and specify the issues to be adjudicated).

56. 42 U.S.C. § 7607 (2012).

57. *See, e.g.*, Richard Cordray, *Forward: Consumer Protection in the Financial Marketplace*, 9 HARV. L. & POLY REV. 307, 309 (2015) ("We believe that the seemingly formulaic processes laid out in the APA and the [Dodd-Frank Act] merely create a floor on collaboration and public input, not a ceiling.").

58. *See* Council on Envtl. Quality, *State NEPA Contacts*, DEP'T OF ENERGY, https://energy.gov/sites/prod/files/2013/09/f2/States_NEPA_Like_22June2013.pdf (last visited Apr. 18, 2017) (listing contacts for states with NEPA-like planning requirements at).

59. *See* Richard E. Levy & Robert L. Glicksman, *Agency-Specific Precedents*, 89 TEX. L. REV. 499, 572 (2011).

60. *See* Emily S. Bremer, *The Unwritten Administrative Constitution*, 66 FLA. L. REV. 1215, 1244–48 (2014); Jack M. Beermann, *Common Law and Statute Law in Administrative*

because it appears to be in tension with the principle established by the Supreme Court in *Vermont Yankee* (and recently reaffirmed in *Mortgage Bankers Association*) that courts should not impose upon agencies procedures beyond those required by statute.⁶¹ In *Vermont Yankee*, as discussed above, the Court found “little doubt that Congress intended that the discretion of the *agencies* and not that of the courts be exercised in determining when extra procedural devices should be employed.”⁶²

Then-Professor Scalia's critique of the opinion notwithstanding,⁶³ *Vermont Yankee's* central holding has stood the test of time. Yet, some administrative common law is consistent with *Vermont Yankee*. This is because the Court acknowledged that the general principle does not “necessarily [mean] that there are no circumstances which would ever justify a court in overturning agency action because of a failure to employ procedures beyond those required by the statute. But such circumstances, if they exist, are extremely rare.”⁶⁴ Much administrative common law nonetheless operates beyond this narrow exception. Indeed, it is widely recognized that, despite *Vermont Yankee*, the courts have imposed a variety of additional requirements on informal rulemaking.⁶⁵ This is often referred to as a judicial gloss on the APA,⁶⁶ and it has been lamented as a significant contributing factor to the “ossification” of that process.⁶⁷

Fourth and finally, executive edicts may also impose legal limitations on agency procedural discretion. There are a number of executive orders that impose procedural requirements on agency

Law, 63 ADMIN. L. REV. 1 (2011); see also Metzger, *supra* note 44, at 1295 (“By administrative common law, I am referring to administrative law doctrines and requirements that are largely judicially created, as opposed to those specified by Congress, the President, or individual agencies.”).

61. *Perez v. Mortgage Bankers Ass'n*, 135 S. Ct. 1199, 1207 (2015); *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 524 (1978).

62. 435 U.S. at 546.

63. Scalia, *supra* note 5 (criticizing the decision's apparent reverence for the APA as the “Magna Carta” of administrative procedure and offering historical, doctrinal, and institutional reasons for permitting courts to require additional agency process).

64. *Vermont Yankee*, 435 U.S. at 524.

65. The necessity of judicial imposition of these requirements was evident to some at the time of the Supreme Court's decision. See Richard B. Stewart, *Vermont Yankee and the Evolution of Administrative Procedure*, 91 HARV. L. REV. 1805, 1816 (1978).

66. See, e.g., Kathryn A. Watts, *Proposing a Place for Politics in Arbitrary and Capricious Review*, 119 YALE L.J. 2, 2 n.1, (2009) (referring to the D.C. Circuit's “hard look” review as a judicial gloss on the meaning of the APA's arbitrary and capricious test); M. Elizabeth Magill, *Agency Choice of Policymaking Form*, 71 U. CHI. L. REV. 1383 (2004) (noting the importance of the judicial gloss on the APA for courts reviewing agency action); Thomas W. Merrill, *Capture Theory and the Courts: 1967-1983*, 72 CHI.-KENT L. REV. 1039, 1039 (1997) (claiming that “the judicial gloss on the APA has taken on a large significance over time”).

67. See Richard J. Pierce, Jr., *Seven Ways to Deossify Agency Rulemaking*, 47 ADMIN. L. REV. 59, 65-66 (1995).

action, often in the context of rulemaking.⁶⁸ For example, Executive Order 13,132 requires agencies to consider the potential effects on federalism when they are drafting regulations.⁶⁹ More famously, Executive Order 12,866 requires agencies to conduct benefit-cost analysis for economically significant regulations.⁷⁰ Other controls on agency procedures are exerted through the Office of Management and Budget (OMB), which is located within the Executive Office of the President.⁷¹ One such control is the review of significant proposed and final rules conducted by the Office of Information and Regulatory Affairs. This review may substantially influence individual agencies' rulemaking processes.⁷² Finally, the president's budget process may also limit agency procedural discretion.⁷³

Over the decades, there has been a shift towards broader recognition of the agencies' authority to establish their own procedures.⁷⁴ As an initial matter, agencies have a significant role in interpreting the laws that establish the boundaries of their procedural discretion. For example, the practical reality is that administrative agencies are usually the first and often the last arbiters of what process is due under the Constitution. This is because such administrative constitutionalism is frequently not subject to judicial review and, when the courts do review it, they are often deferential to the agent's judgment.⁷⁵ Courts have similarly adopted a deferential stance towards agency interpretations of statutes they are authorized to administer.⁷⁶ This includes recognition that *Chevron* deference applies to an agency's interpretation of its own statutory "jurisdiction."⁷⁷

68. See generally Admin. Conf. of the U.S., Recommendation 2012-1, *Regulatory Analysis Requirements*, 77 Fed. Reg. 47,800, 47,801-02 (Aug. 10, 2012) (discussing various regulatory analysis requirements imposed by statute and executive order).

69. Exec. Order No. 13,132, 64 Fed. Reg. 43,255 (Aug. 10, 1999); see Catherine M. Sharkey, *Inside Agency Preemption*, 110 MICH. L. REV. 521 (2012); Admin. Conf. of the U.S., Recommendation 2010-1, *Agency Procedures for Considering Preemption of State Law*, 76 Fed. Reg. 81 (Jan. 3, 2011).

70. See, e.g., Exec. Order No. 12,866, 58 Fed. Reg. 51,735 (Oct. 4, 1993).

71. See Elena Kagan, *Presidential Administration*, 114 HARV. L. REV. 2245, 2247 (2001).

72. See GOV'T ACCOUNTABILITY OFFICE, GAO-03-929, OMB'S ROLE IN REVIEWS OF AGENCIES' DRAFT RULES AND THE TRANSPARENCY OF THOSE REVIEWS (2003), <http://www.gao.gov/new.items/d03929.pdf>.

73. See Eloise Pasachoff, *The President's Budget as a Source of Agency Policy Control*, 125 YALE L.J. 2182 (2016).

74. See, e.g., Vermeule, *supra* note 1, at 1911-19 (analyzing three streams of precedent in which courts have been deferential to agencies' procedural judgments).

75. See *id.* at 1891-92; see also Freeman & Spence, *supra* note 2 and accompanying text.

76. For example, unless a statute uses the magical words "hearing on the record," a court is likely to defer to an agency's reasonable interpretation of its own statute as not requiring formal adjudication under the APA. See *Dominion Energy Brayton Point, LLC v. Johnson*, 443 F.3d 12 (1st Cir. 2006).

77. See *City of Arlington v. FCC*, 133 S. Ct. 1863, 1868 (2013).

V. NON-LEGAL LIMITS ON AGENCY PROCEDURAL DISCRETION

The absence of any *legal* restriction on agency action might be interpreted, wrongly, to indicate that an agency has limitless or unfettered authority to act.⁷⁸ In practice, there are a variety of non-legal restrictions on agency procedural discretion, including agency self-regulation, structural constraints, reputational constraints, and professional constraints.⁷⁹ In the absence of significant legal restrictions on agency procedural innovation, these “soft” constraints play a larger role in defining *Vermont Yankee's* white space.

The first category of constraints includes those that are self-imposed or self-regulatory. Elizabeth Magill defines a self-regulatory activity as an agency action “to limit its own discretion when no source of authority (such as a statute) requires the agency to act.”⁸⁰ Agencies may themselves adopt rules *ex ante* that constrain their ability to innovate procedurally.⁸¹ For example, the Food and Drug Administration adopted guidelines for the issuance of guidance documents—in essence, guidance for guidance—that were later codified pursuant to the Food and Drug Administration Modernization Act of 1997.⁸² And FERC has limited its ability to exercise enforcement discretion by issuing a policy statement on civil penalty guidelines.⁸³ In some cases, even less formal agency conventions might limit the agency's ability to shift its practices without warning.⁸⁴

Beyond self-imposed rules, three additional categories of constraint limit agency freedom to innovate procedurally: *collaborative* constraints, *reputational* constraints, and *professional* constraints.

78. See, e.g., *Styria v. Morgan*, 186 U.S. 1, 9 (1902) (“The establishment of a clearly defined rule of action would be the end of *discretion*, and yet discretion should not be a word for arbitrary will or inconsiderate action.”).

79. For an argument that the President, too, is bound by such non-legal constraints, see ADRIAN VERMEULE & ERIC POSNER, *THE EXECUTIVE UNBOUND* (2010) (citing the reelection constraint, in particular, as cabining executive authority).

80. See Elizabeth Magill, *Agency Self-Regulation*, 77 GEO. WASH. L. REV. 859, 861 (2009) (explaining why agencies might engage in self-limiting behavior). While Magill identifies “extra” procedures as forms of self-regulation, it is crucial to understand that procedure can be used to expand agency power as well as to limit it. See, e.g., Renan, *supra* note 25.

81. Emily Hammond and David Markell have written of the promise of “inside-out” legitimacy, or the ability of administrative process to substitute for judicial review in legitimating administrative action. Emily Hammond & David Markell, *Administrative Proxies for Judicial Review: Building Legitimacy from the Inside-Out*, 37 HARV. ENVTL. L. REV. 313, 327–28 (2013).

82. Food & Drug Admin., *Administrative Practice and Procedures Good Guidance Practices* 65 Fed. Reg. 56,468 (Sept. 19, 2000).

83. FERC, *Revised Policy Statement on Penalty Guidelines*, 132 FERC ¶ 61,216 (Sept. 17, 2010).

84. See *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 548 (1978) (stating that past agency practice permitted the court to review and overturn the rulemaking proceeding).

First are *collaborative* constraints. When agencies operate in shared regulatory space, they may be subject to structural constraints on their procedural discretion. Shared regulatory space is created when Congress delegates to more than one agency power to undertake the same or similar functions or otherwise to operate within a single, larger area of regulatory responsibility.⁸⁵ Joint agency authority may limit agency discretion, including the discretion to innovate procedurally. This is partly due to the necessity for agencies to coordinate their activities in shared regulatory space, such as through joint rulemaking, interagency agreements, and agency consultation agreements.⁸⁶ When the task at hand is to determine the best or most prudent action (and not just to identify the outer limits of permissible action), disagreement among agencies that share authority may impose a real limitation.⁸⁷

In the energy and environmental space, consider EPA's implementation of its Mercury and Air Toxics Standard (limiting the emission of toxic air pollutants from existing power plants) to allow certain power plants extra time to comply.⁸⁸ Although nothing in the Clean Air Act required it to do so, EPA adopted a strategy, laid down in a policy memorandum,⁸⁹ of consulting with FERC reliability experts before deciding whether to grant an extension request. While it did not acknowledge expressly that failure to consult

85. See Jody Freeman & Jim Rossi, *Agency Coordination in Shared Regulatory Space*, 125 HARV. L. REV. 1131 (2012).

86. See generally Admin. Conf. of the U.S., Recommendation 2012-5, *Improving Coordination of Related Agency Responsibilities*, 77 Fed. Reg., 47,810 (Aug. 10, 2012) (recommending procedures and best practices for using these and other approaches to improving agency coordination in shared regulatory space).

87. One example arises in connection with the selection, appointment, and supervision of Administrative Law Judges (ALJs). Here, one agency (such as the Social Security Administration) has statutory authority to administer an adjudicatory program, while another agency (the Office of Personal Management (OPM)) has statutory authority to regulate the selection, appointment, and supervision of the ALJs who will preside over the hearings within that adjudicatory program. This division of authority is intended to preserve the independence of ALJs by introducing into administrative adjudication some separation of functions. See 5 U.S.C. §§ 1104(a), 1302(a), 1305, 3105, 3304, 3323(b), 3344, 4301(2)(D), 5372, and 7521 (2012); see generally VANESSA K. BURROWS, CONG. RESEARCH SERV., ADMINISTRATIVE LAW JUDGES: AN OVERVIEW (2010); Jeffrey S. Lubbers, *Federal Administrative Law Judges: A Focus on Our Invisible Judiciary*, 33 ADMIN. L. REV. 109, 111 (1981). OPM's fulfillment of its statutory responsibility constrains the adjudicatory agency's discretion to appoint and control its ALJs. See OFFICE OF THE CHAIRMAN, ADMIN. CONF. OF THE U.S., EQUAL EMPLOYMENT OPPORTUNITY COMMISSION: EVALUATING THE STATUS AND PLACEMENT OF ADJUDICATORS IN THE FEDERAL SECTOR HEARING PROGRAM 27-32 (March 31, 2014) [hereinafter EEOC REPORT], <https://www.acus.gov/report/equal-employment-opportunity-commission-evaluating-status-and-placement-adjudicators-federal>.

88. National Emission Standards for Hazardous Air Pollutants for Source Categories, 49 C.F.R. § 63 (2017). See *Michigan v. Env'tl. Prot. Agency*, 135 S. Ct. 2699 (2015).

89. Env'tl. Prot. Agency, The Environmental Protection Agency's Enforcement Response Policy For Use of Clean Air Section 113(a) Administrative Orders In Relation To Electric Reliability And The Mercury and Air Toxics Standard (Dec. 16, 2011), <https://www.epa.gov/sites/production/files/documents/mats-erp.pdf>.

with FERC on reliability might lead to inter-agency friction,⁹⁰ the implication was clear.

Even where the agency has itself adopted no formal or informal limits on its ability to innovate procedurally, *reputational* concerns may counsel restraint. Daniel Carpenter has argued that agencies act with their reputations in mind with a goal of preserving a maximum of power and authority over the longer term.⁹¹ And one of us has argued elsewhere that agencies sometimes exercise Bickelian “passive virtues”—restraint in the face of discretion—due to fear of reputational consequence.⁹² For example, if an agency believes that holding too many public meetings on a given topic (say climate change), would subject it to unwanted scrutiny by the political branches, it may limit such meetings even where it would be well within its authority to hold them. Strategic agencies will look beyond particular decisions to the best way to conserve authority and discretion in the longer term.⁹³

Finally, *professional* constraints limit agency procedural decisions. One understanding of “discretion” is, as the Supreme Court has explained, “the absence of a hard and fast rule” that would deprive an agency of a choice of how to act.⁹⁴ But “discretion” can also mean the exercise of sound judgment in decisionmaking.⁹⁵ Although discretion may be unconstrained by the law, courts, or other non-legal constraints, therefore, it is still constrained by good judgment.⁹⁶ An individual agency’s professional culture and norms

90. See *id.* at 2 (noting only that it elected to consult with FERC “in light of the complexity of the electric system”).

91. See DAN CARPENTER, REPUTATION AND POWER: ORGANIZATIONAL IMAGE AND PHARMACEUTICAL REGULATION AT THE FDA (2010) (arguing that the FDA’s awareness of its reputation has shaped its operations over the years).

92. Sharon B. Jacobs, *The Administrative State’s Passive Virtues*, 66 ADMIN. L. REV. 565 (2014).

93. *Id.* at 569.

94. 2 *Langnes v. Green*, 282 U.S. 531 (1931) (citing *The Steamship Styria v. Morgan*, 186 U.S. 1, 9 (1902)).

95. For adoption of this meaning in case law, see, e.g., *Langnes v. Green*, 282 U.S. 531, 541 (1931) (“When invoked as a guide to judicial action, it means a sound discretion, that is to say, a discretion exercised not arbitrarily or wilfully, but with regard to what is right and equitable under the circumstances and the law, and directed by the reason and conscience of the judge to a just result.”); see also *Styria v. Morgan*, 186 U.S. 1, 9 (1902) (quoting dictionary definitions of “discretion” to make the point that its exercise entails the application of reason and sound judgment). See also *Discretion*, MERRIAM-WEBSTER COLLEGIATE DICTIONARY (11th ed. 2003), <http://www.merriam-webster.com/dictionary/discretion> (last visited Apr. 18, 2017) (defining discretion as, among other things, “the quality of having or showing discernment or good judgment” and the “ability to make responsible decisions”).

96. For this reason, even in areas in which agencies possess significant procedural discretion, successfully encouraging agencies to innovate requires giving those agencies comfort that innovation is lawful and within the scope of their discretion. See, e.g., Admin. Conf. of the U.S., Recommendation 2011-1, *Legal Considerations in e-Rulemaking*, 76 Fed. Reg. 48,789, 48,790 (“With respect to the issues addressed in this recommendation, the APA contains sufficient flexibility to support e-Rulemaking and does not need to be amended for these purposes at the present time. Although the primary goal of this recommendation is to

may also limit procedural experimentation beyond what is optional. Certain agencies have made headlines for their innovative cultures, but others can be conservative in their procedural choices.⁹⁷ Even at relatively innovative agencies, fidelity to established modes of operation can serve to limit experimental overreach.⁹⁸

VI. CONCLUSION

Agency procedural innovation is a regular feature of today's bureaucracy. And it takes place largely without judicial supervision. Even for those who fear too much agency autonomy, however, there is little cause for alarm. Notwithstanding the considerable white space left by *Vermont Yankee* and other legal constraints, agencies' discretion to adopt new procedures is still circumscribed. Because of the non-legal constraints identified in the previous section, we believe that we are unlikely to see procedural experimentation descending into arbitrariness.

The interdependence of substance and procedure cuts in favor of recognizing broad agency procedural discretion. How an administrative system is designed will have a significant impact on whether, how, and in what way a substantive statutory mandate is fulfilled.⁹⁹ To restrict an agency's procedural discretion may often have the effect of restricting its substantive authority. This may be especially so in light of the resource constraints under which agencies must operate. Procedural design requires the exercise of expert judgment regarding how best to optimize available resources and prioritize competing statutory commands.¹⁰⁰ Agencies are better situated than courts to make these judgments, in part because they have more complete, systemic information about the industry or subject they regulate and the way that various administrative approaches may work (or not) in that context.¹⁰¹ This comparative institutional advantage provides further justification for courts, Congress, and

dispel some of the legal uncertainty agencies face in e-Rulemaking, where the Conference finds that a practice is not only legally defensible, but also sound policy, it recommends that agencies use it.”).

97. P'SHIP FOR PUB. SERV., 2014 BEST PLACES TO WORK IN THE FEDERAL GOVERNMENT ANALYSIS 2 (2015) (performing an assessment of innovation at federal government agencies and concluding that six agencies had a “disproportionately high impact” on the overall innovation score). In this survey, less than a third of federal employees who were looking for ways to be more innovative felt that creativity and innovation were rewarded. *Id.*

98. See John. D. Dilulio, Jr., *Principled Agents: The Cultural Bases of Behavior in a Federal Government Bureaucracy*, 4 J. PUB. ADMIN. RESEARCH & THEORY 277 (1994) (arguing for the relevance of agency culture in shaping bureaucratic action).

99. See Vermeule, *supra* note 1, at 1921.

100. *Id.*

101. *Id.* at 1922.

the executive to embrace a background norm of agency procedural discretion.¹⁰²

On the other hand, embracing agency procedural discretion may further contribute to the proliferation of a wide diversity of administrative procedures throughout the administrative state. While experimentation can lead to discovery of more effective, efficient governmental tools, it may also undermine uniformity and transparency, making it harder for courts, Congress, and the public to understand how the administrative state as a whole operates. Although an agency may have superior information about its own activities and regulatory space, it lacks a broader systemic perspective across agencies. This downside to broad agency procedural discretion, however, can be addressed through means other than increased judicial enforcement of uniformity. Attention to cross-agency procedural issues may help to break down the silo effect and enable agencies to consider broader systemic considerations as they design their own procedures. This may be accomplished through scholarly attention to systemic procedural issues, as well as through executive action to facilitate cross-pollination of procedural best practices across agencies.¹⁰³ These activities can help to reduce unnecessary and harmful variation. They can also offer efficiencies by identifying procedures that have been successfully tested by one agency and can be used equally successfully by other agencies faced with similar issues.

One major downside of the dearth of judicial oversight in this area, however, is that procedural innovation has received limited scholarly attention. We think that is a mistake. Research that offers a systemic, cross-agency perspective will enable the sharing of valuable procedural innovations across agencies. By identifying procedures that have been successfully tested by one agency, and can be used equally successfully by other agencies faced with similar issues, scholarship can help agencies capitalize on the promise of procedural innovation while promoting a degree of uniformity across agency practice that enables greater public understanding of and access to federal administration.

102. Judicial deference to agency decisionmaking is often justified on the basis of the “expertise-based comparative institutional advantage” of agencies. See Richard J. Pierce, Jr. & Joshua Weiss, *An Empirical Study of Judicial Review of Agency Interpretations of Agency Rules*, 63 ADMIN. L. REV. 515, 517 (2011).

103. The Administrative Conference of the United States is an institution well-designed and positioned to fulfill this role. See 5 U.S.C. §§ 591–96 (2012).

**EXPANDING THE BOUNDARIES OF ADMINISTRATIVE
CONSTITUTIONALISM: UNDERSTANDING AND
ASSESSING AGENCIES' EXPERIMENTATION
WITH PROCEDURES**

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I. INTRODUCTION

Emily Bremer and Sharon Jacobs's essay *Agency Innovation in Vermont Yankee's White Space*¹ is the product of a wonderful collaboration of two scholars who have independently established an impressive record of pathbreaking administrative law scholarship. Here, in a brilliant essay, they have tackled a topic that itself will require a full body of literature. My brief comments here are largely musings on how these thought-provoking ideas could potentially be framed and further explored in future work—hopefully by these scholars and others—and other details of agency procedure that might be worthy of further thought.

The essay persuasively identifies a sweeping area of administrative legal space that has received too little attention—agencies' use of a panoply of a variety of rulemaking, enforcement, and other procedures that represent potential fruitful models for further agency experimentation. The authors first note broad latitude for procedural innovation enjoyed by agencies following the *Vermont Yankee* doctrine,² in which the Supreme Court substantially limited courts' ability to mandate that agencies follow specific procedures aside from the often bare-bones requirements of the Administrative Procedure Act (APA) and agency enabling statutes.³ It goes on to frame the many ways in which agencies have since taken advantage of this procedural discretion, noting that the literature, which

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1. Emily S. Bremer & Sharon Jacobs, *Agency Innovation in Vermont Yankee's White Space*, 32 J. LAND USE ENVTL. L. 523 (2017).

2. *See* Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc., 435 U.S. 519 (1978).

3. Bremer & Jacobs, *supra* note 1.

largely focuses on *substantive* administrative discretion, has inadequately considered this important area.

Bremer and Jacobs define the broad category in which they are operating by relying on Larry Solum's, courts', and the APA's separation of the procedural from the substantive, which largely focuses on whether an agency action affects an individual or group's rights or requires or bars specific action. They rightfully observe that this is a difficult and fuzzy distinction, and that procedures often significantly affect substantive outcomes, but that it is nonetheless a helpful, if rough, dividing line.⁴ They then frame up this vast area by placing agency procedural decisions within two subcategories, which are themselves quite broad. These categories include rules that shape agencies' internal actions, such as how agencies vote on orders or other actions or decide whether and how to work with other agencies in reaching a decision.⁵ Secondly, Bremer and Jacobs define agencies' external procedures as including "interactions between the public and the agency," such as which and how many parties are consulted prior to a rulemaking.⁶ After laying out case studies of meaningful procedural innovations by the Environmental Protection Agency (EPA) and the Federal Energy Regulatory Commission (FERC), the authors ask how, and to what degree, these and other agencies are limited in their innovative procedural pursuits by the formal, legal authorities of the Constitution, Congress, courts, and the Executive.⁷ And, building from their previous work, they finally explore less formal avenues of restraint on agencies' procedural innovation, such as reputational effects and the like.⁸

In defining and parsing this massive sphere of administrative procedural innovation, providing concrete case studies from two agencies, and exploring the likely hard and soft barriers at the outer bounds of innovation, Bremer and Jacobs have constructed a useful framework for further analysis. As they and others further explore this area, there seem to be potential alternative frames to consider, as I describe briefly in Part II, and several specific areas that merit more detailed exploration, which I identify in Part III of this response.

4. *Id.* at 525–27.

5. *Id.* at 526.

6. *Id.*

7. *Id.* at 530–31.

8. *Id.* at 538–39.

II. POSSIBILITIES FOR REFRAMING

In the realm of framing, I wonder whether Bremer and Jacobs's categories of "internal" and "external" agency relations could be further parsed. They define agencies' internal procedures as including rules such as voting structures for the agency—clearly an internal activity—as well as agency collaboration with other agencies and the executive.⁹ But often agencies' collaborations themselves have a substantial element that is external to the agency, although not external to the government as a whole. For example, although agencies sometimes choose to collaborate or not, later in the essay Bremer and Jacobs note the executive requirements of sending numerous agency rules to the Office of Management and Budget (OMB) for review.¹⁰ OMB has extensive influence over agencies, requiring them to invest massive time and resources into proving that the benefits of a regulation exceed its costs. And recent congressional and executive pressures have further heightened these requirements. Further, the extensive agency ossification literature documents the judicial and other governmental pressures on agencies that often stymie new and needed rules.¹¹ Thus, perhaps the internal category might best be defined and analyzed as "internal to the agency" and "internal to the government," with the external category still encompassing only agencies' interactions with the non-governmental "public" at large.

The agency external procedural relations category might similarly benefit from additional parsing. Agencies' choices regarding how and when to interact with the public involve very different types of communications with different risks, such as the risk of capture by regulated industry or over-reliance on non-governmental organization (NGO) input without adequate consultation with regulated industry. Indeed, Bremer and Jacobs's case studies show these meaningfully different interactions. In its drafting of the Clean Power Plan (CPP), EPA's extensive voluntary consultations with state governmental officials who work in both the energy and the environmental areas, and its meetings with the public around the United States, represent two very different types of external relations. State governmental officials have their own agendas and

9. *Id.* at 525–26.

10. *Id.* at 536–37.

11. *See, e.g.*, Thomas O. McGarity, *Some Thoughts on "Deossifying" the Rulemaking Process*, 41 DUKE L.J. 1385 (1992) (theorizing agencies' inaction as a result of extensive judicial review); Mark Seidenfeld, *Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking*, 75 TEXAS L. REV. 483 (1997) (questioning the ossification theory); Thomas O. McGarity, *The Courts and the Ossification of Rulemaking: A Response to Professor Seidenfeld*, 75 TEX. L. REV. 525 (1997) (exploring in more detail why and how ossification occurs and is a problem).

expertise—scholars like Miriam Seifter¹² explore how organizations of state officials are an independent, often largely unchecked and not-fully-understood lobbying force. And members of the “public” consulted in larger meetings, such as the meetings held in the process of CPP drafting, represent views from individuals and NGOs with distinct agendas, among other interests. Here, scholars like Mark Seidenfeld have detailed how overreliance on these groups, too, can have its dangers, despite the importance of involving the public.¹³ For example, members of the public who lack the resources to gather the necessary data to adequately understand the technical aspects of the rule have difficulty constructively participating in agency rulemaking and other activities.¹⁴

An additional area potentially in need of further categorization and separation is the vast field of agency “procedure” itself. Bremer and Jacobs introduce an incredibly broad range of agency procedural choices both in describing innovation generally and in providing case studies. For example, they describe an EPA program that focuses environmental regulations and enforcement on disadvantaged communities;¹⁵ a choice by FERC to allow rehearings of its orders despite no requirement for FERC to do so;¹⁶ and EPA’s conducting extensive meetings around the country when drafting the Clean Power Plan,¹⁷ among other examples. These are all vastly different types of procedures with vastly different implications. For instance, the authors note how FERC’s allowance of rehearing of its orders allows for technical corrections and more involvement of regulated parties and other entities in the rulemaking process than would typically occur.¹⁸ Enabling extensive participation in rulemaking is quite different from focusing limited agency resources on particular communities, or hearing from large swaths of the public before and during the rule drafting stage. Categorizing the many types of agency procedures will be quite a difficult task, but the category is so broad that it threatens to be unmanageable. Normative analyses of when and to what extent external entities should police

12. Miriam Seifter, *States as Interest Groups in the Administrative Process*, 100 VA. L. REV. 953 (2014).

13. See Mark Seidenfeld, *Empowering Stakeholders: Limits on Collaboration as the Basis for Flexible Regulation*, 41 WM. & MARY L. REV. 411, 427–445 (2000) (noting problems with citizen participation).

14. See, e.g., Alejandro Esteban Camacho, *Mustering the Missing Voices: A Collaborative Model for Fostering Equality, Community Involvement and Adaptive Planning in Land Use Decisions, Installment Two*, 24 STAN. ENVTL. L.J. 269, 315–316 (2005) (describing the challenge of public interest groups having limited resources but suggesting how to constructively address this challenge).

15. Bremer & Jacobs, *supra* note 1, at 528.

16. *Id.* at 530.

17. *Id.* at 527.

18. *Id.* at 529–30.

agency procedures and which entities should do so, as well as how and why agency procedural innovations occur, would benefit greatly from this categorization.

III. EXPANDING DISCUSSION OF EXTERNAL CONSTRAINTS ON AGENCY PROCEDURE AND THE OPPORTUNITIES FOR PROCEDURAL EXPERIMENTATION

In addition to considering alternative framing, Bremer and Jacobs provide numerous tantalizing tidbits of ideas that merit detailed discussion in future work. These include, among other potential areas of future discussion: (1) additional normative analysis of courts', Congress's, and the executive's constraints on agency procedures; and (2) expanded analysis of agencies' experimentation with a variety of procedural techniques, in a trend that has some features similar to the federalism literature that addresses state experimentation with subfederal substantive policies.

With respect to external constraints on agencies' procedural innovation, the authors briefly note negotiated rulemaking ("reg-neg") and the extensive literature on that topic—one of the rare instances in which scholars have explored administrative procedures in detail.¹⁹ It would be interesting to see more direct comparison between reg-neg and the many other innovative agency procedures that Bremer and Jacobs identify, and further exploration of whether Congress or other entities should be more involved in policing agency procedures, as they are in the case of reg-neg.

In the limited space available to them in an essay, Bremer and Jacobs do briefly normatively explore whether courts, as opposed to Congress, are better than agencies at deciding on procedures—such as where to focus energies in light of “competing statutory demands”—and they conclude that agencies are better situated to do this. But further exploration of Congress's role here, and whether Congress should step in more as a procedural referee, could be fruitful. For example, it seems that Congress, through the Federal Advisory Committee Act²⁰ and other statutes, placed relatively detailed procedural requirements on agencies that engage in reg-neg because through this process agencies rely heavily on regulated

19. See, e.g., Cary Coglianese, *Assessing Consensus: The Promise and Performance of Negotiated Rulemaking*, 46 DUKE L.J. 1255 (1998); Jody Freeman, *Collaborative Governance in the Administrative State*, 45 UCLA L. REV. 1 (1997); Kimberly D. Krawiec, *Cosmetic Compliance and the Failure of Negotiated Governance*, 81 WASH. U. L.Q. 487 (2003); Jeffrey S. Lubbers, *Enhancing the Use of Negotiated Rulemaking by the U.S. Department of Education*, in RECALIBRATING REGULATION OF COLLEGES AND UNIVERSITIES: REPORT OF THE TASK FORCE ON FEDERAL REGULATION OF HIGHER EDUCATION 90 (2015), http://www.help.senate.gov/imo/media/Regulations_Task_Force_Report_2015_FINAL.pdf.

20. 5 U.S.C. §§ 561–570a (2000).

stakeholders to suggest the content of proposed rules. Although this is beneficial because regulatory targets are often most familiar with the technical aspects of a regulated activity, and the feasibility of various rules, there could be a heightened risk of undue influence in rulemaking by those with the most to gain or lose from the rules. Procedural safeguards help to protect against capture or capture-like problems. But are similar congressionally-crafted safeguards needed when agencies act in the white space explored by Bremer and Jacobs? For example, the authors note that FERC sometimes chooses to invite experts to make presentations to the commissions through a process that does not amount to reg-neg but has similar elements. In cases where FERC relies heavily on experts who are themselves the actors regulated by FERC, does this present a much different scenario from reg-neg?

Along similar lines, it could be interesting to explore in more detail why Congress has chosen to limit agency procedural discretion in a few areas beyond reg-neg, such as the Freedom of Information Act and Government in the Sunshine Act mentioned by the authors. Additionally, Bremer and Jacobs identify other statutes that require agencies to follow specific procedures when making decisions in defined substantive areas (agency consultation with the Fish and Wildlife Service, and the National Environmental Policy Act (NEPA)). NEPA, in particular, has huge impacts on agencies, requiring years of detailed studies and data gathering.²¹ Why did Congress focus on these cross-cutting areas, and procedures within more defined areas, while leaving broader agency procedural discretion elsewhere? In light of the many procedural innovations noted by the authors, *should* Congress be more involved in monitoring particular agencies or procedures in particular substantive areas (like environmental areas), given that agencies often self-select procedures that can have profound impacts on those they regulate?

Another theme seemingly implied by the authors, but one that would require reams of scholarship, is the overall concept of agencies innovating in a broad range of procedural areas. In a way, a variety of agencies experimenting with a variety of procedures has similarities to the federalism literature on state experimentation with substantive policies (“the laboratory of the states”).²² Further exploration of when and why agency experimentation with procedures is beneficial, how agencies could better learn lessons

21. See, e.g., COUNCIL ON ENVTL. QUALITY, THE NATIONAL ENVIRONMENTAL POLICY ACT: A STUDY OF ITS EFFECTIVENESS AFTER TWENTY-FIVE YEARS iii (1997), <https://www.blm.gov/or/regulations/files/nepa25fn.pdf>; Bradley C. Karkkainen, *Toward a Smarter NEPA: Monitoring and Managing Government's Environmental Performance*, 102 COLUM. L. REV. 903, 917–919 (2002).

22. See Hannah J. Wiseman, *Regulatory Islands*, 89 N.Y.U. L. REV. 1661 (2014).

from other agencies' innovations, and how the positive and negative results of procedural experimentation could best be measured and documented to provide future lessons would be quite interesting. The literature on agencies' experimentation with substantive policy could be similarly helpful.²³

V. CONCLUSION

In the limited space available to them, Bremer and Jacobs have offered a tantalizingly rich introduction to what promises to be a wonderful new line of administrative scholarship. Their description of agencies' procedural innovations, as well as the case studies they provide, suggest bountiful possibilities for additional analysis and numerous case studies in fields well beyond the environmental and energy realms. I hope that they and others will continue to work on this interesting and promising subject.

23. See, e.g., Charles F. Sabel & William H. Simon, *Minimalism and Experimentalism in the Administrative State*, 100 *GEO. L.J.* 53 (2011) (exploring agency experimentation).

LAWMAKING WITHIN FEDERAL AGENCIES AND WITHOUT JUDICIAL REVIEW

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I. INTRODUCTION

Last year at the Florida State University College of Law’s *Environmental Law Without Courts* Symposium, we explored a number of fascinating aspects of how federal agencies regulate in ways that are insulated from judicial review. These explorations ranged from the broad discretion agencies have to manage public lands¹ and federal fisheries,² to how a “military-environmental complex” has developed to advance national environmental objectives with little judicial involvement,³ to how agencies can navigate in ways that are not judicially reviewable on judicial remand⁴ or with respect to designing their own internal procedures.⁵

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1. Eric Biber, *Looking Toward the Future of Judicial Review for the Public Lands*, 32 J. LAND USE & ENVTL. L. 359 (2017); Shi-Ling Hsu, *Judicial Review for the Public Lands: Comment to Eric Biber*, 32 J. LAND USE & ENVTL. L. 375 (2017).

2. Robin Kundis Craig & Catherine Danley, *Federal Fisheries Management: A Quantitative Assessment of Federal Fisheries Litigation Since 1976*, 32 J. LAND USE & ENVTL. L. 381 (2017); Donna Christie, *Comments on Fisheries Management Without Courts*, 32 J. LAND USE & ENVTL. L. 423 (2017); Erin Ryan, *Fisheries Management Without Courts*, 32 J. LAND USE & ENVTL. L. 431 (2017).

3. Sarah E. Light, *The Military-Environmental Complex and the Courts*, 32 J. LAND USE & ENVTL. L. 455 (2017); Shi-Ling Hsu, *The Military-Environmental Complex and the Courts: Comment to Sarah Light*, 32 J. LAND USE & ENVTL. L. 477 (2017).

4. Robert L. Glicksman & Emily Hammond, *Agency Behavior and Discretion on Remand*, 32 J. LAND USE & ENVTL. L. 483 (2017); David L. Markell, *Agency Motivations in Exercising Discretion*, 32 J. LAND USE & ENVTL. L. 513 (2017).

5. Emily S. Bremer & Sharon Jacobs, *Agency Innovation in Vermont Yankee’s White Space*, 32 J. LAND USE & ENVTL. L. 523 (2017); Hannah J. Wiseman, *Expanding the Boundaries of Administrative Constitutionalism: Understanding and Assessing Agencies’ Experimentation with Procedures*, 32 J. LAND USE & ENVTL. L. 543 (2017). For additional commentary on the Symposium see Arden Rowell, *Environmental Lawmaking Within Federal*

This Essay examines two other ways administrative law operates with little, if any, judicial oversight: federal agencies play a substantial role in drafting the legislation that empowers them to regulate, and agencies then typically have broad discretion within that congressionally delegated authority to choose how to regulate. The former legislative-drafting activity fully escapes judicial review, and the agency choices made in the latter rulemaking activity are usually only reviewed by courts for reasonableness.⁶ In other words, a vast amount of agency lawmaking escapes judicial review, which suggests that it is all the more important to understand the key players *within* the agency that engage in these legislative and regulatory activities.

Drawing on a study I conducted for the Administrative Conference of the United States (ACUS),⁷ this Essay aims to shed some light on these issues by describing the processes and agency officials involved in drafting regulations and in providing technical assistance in legislative drafting. It turns out that agency general counsel offices—made up primarily of civil-servant lawyers—play a critical role in both activities. Yet not all agency general counsel offices are structured the same to coordinate these activities. In particular, the Department of Energy is one outlier in that its general counsel office combines the legislative and regulatory counsel in one division, where agency lawyers cross-train and work on drafting both regulations and legislation. Most agencies, by contrast, have separate legal divisions for regulatory and legislative matters, and these divisions have little direct interaction in carrying out their responsibilities. As this Essay illustrates, these institutional design decisions may have important implications for agency lawmaking, especially in a world with little to no judicial review.

This Essay proceeds in two Parts. Part II briefly outlines these two types of agency lawmaking activity—rulemaking and legislative drafting—and how they are insulated from judicial review. Part III explores how agency design may matter in both lawmaking activities—with a particular emphasis on the agency general counsel office—by discussing the various agency organizational models

Agencies and Without Judicial Review, 32 J. LAND USE & ENVTL. L. 567 (2017), and Mark Seidenfeld, *The Long Shadow of Judicial Review*, 32 J. LAND USE & ENVTL. L. 579 (2017).

6. See, e.g., *Chevron U.S.A., Inc. v. Nat. Res. Def. Council, Inc.*, 467 U.S. 837, 842–43 (1984) (instructing courts to defer to reasonable agency interpretations of ambiguous provisions in statutes the agency administers).

7. CHRISTOPHER J. WALKER, FEDERAL AGENCIES IN THE LEGISLATIVE PROCESS: TECHNICAL ASSISTANCE IN STATUTORY DRAFTING (Admin. Conference of U.S. ed., 2015); see also *Adoption of Recommendations*, 80 Fed. Reg. 78,161, 78,161–63 (Dec. 16, 2015) [hereinafter ACUS Recommendations] (summarizing findings and adopting various recommendations from my ACUS report).

identified in the ACUS study. In particular, the combined legislation and regulation legal office has the virtue of ensuring that those agency lawyers who help draft the legislation can fully leverage the agency's experience and expertise in implementing the legislation, and vice versa. Part III also flags a number of best practices for agency general counsel offices to consider short of consolidating legislative and regulatory counsel in one office.

This Essay is by no means a comprehensive take on how agency design choices can affect agency lawmaking. Instead, the objective here is to call attention to the topic and sketch out potential avenues for further research and discussion. Such further exploration is particularly important with respect to agency lawmaking that is insulated from judicial review.

II. AGENCY LAWMAKING WITHOUT JUDICIAL REVIEW

This Part focuses on two main ways in which federal agencies make, or at least help make, law that is insulated from judicial review: drafting regulations and providing technical assistance in legislative drafting. I have explored both of these types of agency lawmaking in prior work.⁸ Accordingly, this Essay provides just a brief overview of the findings from those prior studies.

A. Rulemaking and Chevron Deference

First, federal agencies draft rules that are then subject to public notice and comment.⁹ To be sure, the final versions of those rules are also subject to judicial review under the Administrative Procedure Act.¹⁰ But, due to *Chevron* deference, when the underlying statute is ambiguous judicial review is limited to the reasonableness of the agency's interpretation.¹¹ As the *Chevron* Court explained, the reviewing "court need not conclude that the agency construction was the only one it permissibly could have adopted to uphold the construction, or even the reading the court would have reached if the question initially had arisen in a judicial proceeding."¹² Thus,

8. See WALKER, *supra* note 7 (documenting how agencies provide technical assistance in legislative drafting); Christopher J. Walker, *Inside Agency Statutory Interpretation*, 67 STAN. L. REV. 999 (2015) (reporting findings of survey of agency rule drafters).

9. See 5 U.S.C. § 553 (2012) (detailing notice-and-comment rulemaking procedures).

10. See *id.* § 702 ("A person suffering legal wrong because of agency action, or adversely affected or aggrieved by agency action within the meaning of a relevant statute, is entitled to judicial review thereof.")

11. *Chevron*, 467 U.S. at 843–44.

12. *Id.* at 843 n.11; *accord* Nat'l Cable & Telecomms. Ass'n v. Brand X Internet Servs., 545 U.S. 967, 980 (2005) ("If a statute is ambiguous, and if the implementing agency's

agencies are provided with “*Chevron* space” to regulate without judicial interference.¹³ To provide some additional context, Kent Barnett and I just concluded our review of every published circuit court decision that cites *Chevron* deference from 2003 through 2013, and we found that the agency won 77.4 percent of the time when courts applied the *Chevron* framework and 93.8 percent of the time when courts found the statute ambiguous and thus assessed the agency’s interpretation for reasonableness.¹⁴

To better understand how federal agencies approach these rule-making activities, in 2013 I surveyed federal agency rule drafters at seven executive departments (Agriculture, Commerce, Energy, Homeland Security, Health and Human Services, Housing and Urban Development, and Transportation) and two independent agencies (Federal Communications Commission and Federal Reserve).¹⁵ The survey consisted of 195 questions and covered a

construction is reasonable, *Chevron* requires a federal court to accept the agency’s construction of the statute, even if the agency’s reading differs from what the court believes is the best statutory interpretation.” (citing *Chevron*, 467 U.S. at 843–44, 843 n.11)).

13. Peter L. Strauss, “*Deference*” Is Too Confusing—Let’s Call Them “*Chevron* Space” and “*Skidmore* Weight,” 112 COLUM. L. REV. 1143, 1145 (2012) (Under *Chevron* space, “the natural role of courts, like that of referees in a sports match, is to see that the ball stays within the bounds of the playing field and that the game is played according to its rules. It is not for courts themselves to play the game.”); see also *United States v. Mead Corp.*, 533 U.S. 218, 247 (2001) (Scalia, J., dissenting) (explaining that *Chevron* “create[s] a space, so to speak, for the exercise of continuing agency discretion”); accord *Brand X*, 545 U.S. at 980 (noting that “ambiguities in statutes within an agency’s jurisdiction to administer are delegations of authority to the agency to fill the statutory gap in reasonable fashion”).

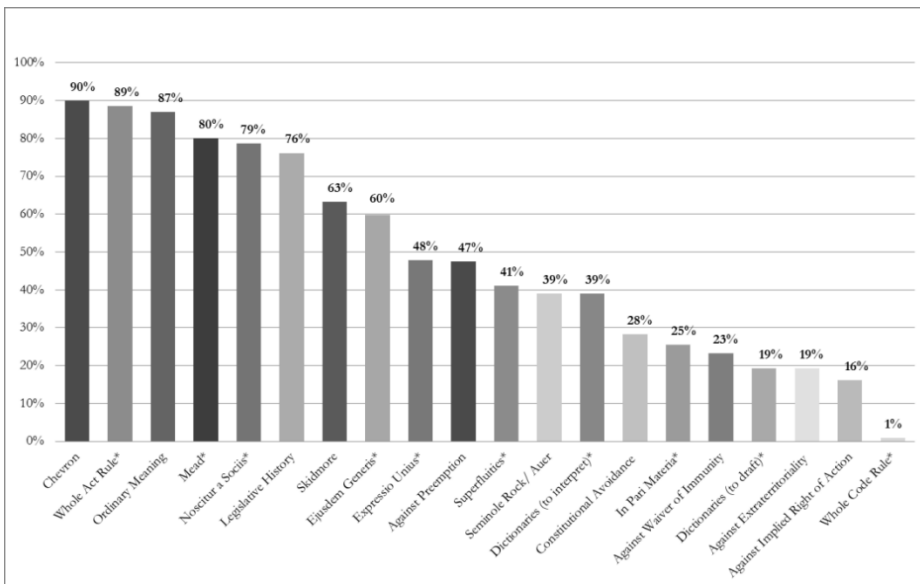
To be sure, an empirical study by Bill Eskridge and Lauren Baer cast doubt on whether *Chevron* deference really creates such policy space at the Supreme Court. William N. Eskridge, Jr. & Lauren E. Baer, *The Continuum of Deference: Supreme Court Treatment of Agency Statutory Interpretation from Chevron to Hamdan*, 96 GEO. L.J. 1083, 1123–25 (2008); see also Thomas W. Merrill, *Judicial Deference to Executive Precedent*, 101 YALE L.J. 969, 982 (1992) (“[I]t is clear that *Chevron* is often ignored by the Supreme Court. . . . [T]he two-step framework has been used in only about one-third of the total post-*Chevron* cases”). My own, more recent coauthored study of *Chevron* deference in the federal courts of appeals, however, suggests that *Chevron* deference retains such policy space at the circuit court level. Kent Barnett & Christopher J. Walker, *Chevron in the Circuit Courts*, 115 MICH. L. REV. (forthcoming 2017) (finding, *inter alia*, nearly a twenty-five percentage point difference in agency win rates when the circuit courts applied *Chevron* deference than when they refused to apply it); see also Christopher J. Walker, *Chevron Deference and Patent Exceptionalism*, 65 DUKE L.J. ONLINE 149, 156–58, 161–62 (2016) (arguing in the context of the Federal Circuit and agency interpretations of substantive patent law that *Chevron* deference may serve to control lower courts and provide greater nationwide uniformity).

14. Barnett & Walker, *supra* note 13 (manuscript at 34 fig.3).

15. The full findings are reported in Walker, *supra* note 8; see also Christopher J. Walker, *Chevron Inside the Regulatory State: An Empirical Assessment*, 83 FORDHAM L. REV. 703 (2014) [hereinafter Walker, *Chevron Inside the Regulatory State*] (further exploring findings related to administrative law’s deference doctrines); Christopher J. Walker, *Inside Regulatory Interpretation: A Research Note*, 114 MICH. L. REV. FIRST IMPRESSIONS 61 (2015) (exploring findings related to regulatory interpretation). The survey was modeled on Lisa Bressman and Abbe Gluck’s pioneering study on congressional drafting. See Abbe R. Gluck & Lisa Schultz Bressman, *Statutory Interpretation from the Inside—An Empirical Study of Congressional Drafting, Delegation, and the Canons: Part I*, 65 STAN. L. REV. 901 (2013); Lisa Schultz Bressman & Abbe R. Gluck, *Statutory Interpretation from the Inside—An*

variety of topics related to agency statutory interpretation and rule drafting. Ultimately, 128 agency rule drafters responded for a 31 percent response rate. Although confidentiality concerns (among other things) limit the generalizability of the study's findings,¹⁶ the rule drafters surveyed provided critical insights into what they consider when determining whether they have *Chevron* space and, if so, how to utilize such space when regulating. Figure 1 presents the findings with respect to the rule drafters' use of all interpretive tools explored in the study—reported as the percentage of rule drafters who indicated that they use these tools when interpreting statutes or drafting rules.¹⁷

Figure 1. Agency Rule Drafters' Use of Interpretive Tools



Perhaps unsurprisingly *Chevron* deference was the clear winner of the entire survey. Among all twenty-two interpretive tools included in the survey, *Chevron* was the most known by name (94%) and most reported as playing a role in rule drafting (90%). The next most recognized tools were: the ordinary meaning canon (92%),

Empirical Study of Congressional Drafting, Delegation, and the Canons: Part II, 66 STAN. L. REV. 725 (2014).

16. For more on the study methodology and its accompanying limitations, see Walker, *supra* note 8, at 1013–18.

17. Figure 1 is reproduced from *id.* at 1020 fig.2 and reports the rule drafters' indication of use of the interpretive principle by name—except where indicated with an asterisk, in which case the use is reported by concept. For canons reported by concept, use is calculated by including those who responded that those concepts were always or often true. The *Mead* doctrine is calculated by concept by taking the lower percentage reported of the two conditions. See *id.* at 1020 n.83.

Skidmore deference (81%), and the presumption against preemption of state law (78%).¹⁸ As Figure 1 depicts, after *Chevron*, the tools most reported as playing a role in rule drafting were: the whole act rule (89%), the ordinary meaning canon (87%), *Mead* doctrine (80%), *noscitur a sociis* (associated-words canon) (79%), and legislative history (76%).

Chevron's supremacy is important for understanding how federal agencies approach rulemaking. The agency rule drafters surveyed appreciated that if a statutory provision is ambiguous, the agency—not the court—will be the primary interpreter of the statute, and that the agency's interpretation of the statutory ambiguity will likely prevail on judicial review so long as it is reasonable.¹⁹ This observation, however, has some limitations. The agency respondents noted that not all ambiguities create such *Chevron* space, as ambiguities related to major questions, preemption of state law, and constitutional questions may not do so.²⁰ Conversely, virtually all agency respondents agreed that ambiguities relating to implementation details or relating to the agency's area of expertise indicated congressional intent to create *Chevron* space for the agency.²¹

The agency rule drafters surveyed, moreover, seemed to suggest that federal agencies act differently when they believe they are entitled to *Chevron* space. Nearly nine in ten rule drafters surveyed strongly agreed (46%) or agreed (41%)—and another 11% somewhat agreed—that “[w]hen drafting rules and interpreting statutes, agency drafters such as yourself think about subsequent judicial review.”²² The rule drafters surveyed understood quite well how different deference doctrines affect agency win rates on judicial review: four in five strongly agreed (38%) or agreed (45%)—and another 17% somewhat agreed—that “[i]f *Chevron* deference (as opposed to *Skidmore* deference or no deference) applies to an agency's interpretation of an ambiguous statute it administers, the agency is more likely to prevail in court.”²³ Indeed, two in five rule drafters surveyed agreed (31%–33%) or strongly agreed (7%–10%)—and another two in five somewhat agreed (40%–45%)—that a federal agency is more aggressive in its interpretive efforts if it is confident

18. See *id.* at 1019 fig.1 (depicting knowledge of interpretive tools by name).

19. See *id.* at 1049–52.

20. See Christopher J. Walker, *Toward a Context-Specific Chevron Deference*, 81 MO. L. REV. 1095, 1109–16 (2016) (exploring in greater detail these findings regarding delegation by ambiguity).

21. Walker, *supra* note 8, at 1053–55, 1053 fig.10.

22. Walker, *Chevron Inside the Regulatory State*, *supra* note 15, at 722 (quoting survey question).

23. *Id.* at 723 (quoting survey question).

that *Chevron* deference applies—as opposed to *Skidmore* deference or *de novo* review.²⁴

In sum, the federal agency rule drafters surveyed embraced the idea that *Chevron* deference creates a space for agency lawmaking that is insulated from searching judicial review and provided some support for the idea that agencies regulate differently—more aggressively—when they believe their interpretive efforts fall within this *Chevron* space.

B. Agency Legislative Drafting Assistance

Agencies also help make law in a judicially unreviewable manner by assisting Congress in drafting statutes. Federal agencies play a substantial role in the legislative process by submitting substantive legislation to Congress and by providing confidential technical drafting assistance on legislation drafted by congressional staffers.²⁵ Although federal agencies are often influential in the drafting of the legislation that delegates lawmaking authority to those agencies, the role of agencies in the legislative process is fully insulated from judicial review. Of course, courts review statutory text to determine its meaning and its constitutionality. But courts do not review how agencies participated in its drafting. In particular, courts do not assess whether agencies self-delegate lawmaking authority by leaving statutory mandates broad and ambiguous, much less the role agencies may play in drafting statutes that eliminate judicial review of agency action altogether.²⁶

As detailed in my ACUS report, federal agencies play a substantial role in drafting statutes that they subsequently administer. In addition to federal agencies' substantive legislative activities,²⁷ federal agencies routinely respond to congressional requests to provide technical assistance in statutory drafting. In its recommendations to improve the technical drafting assistance process, ACUS provided a helpful summary of the process:

24. *Id.* at 722–24, 722 fig.3. These findings are presented in percentage ranges because the survey explored this issue with two questions that were worded in slightly different ways. *See id.* at 723–24.

25. *See* WALKER, *supra* note 7, at 5–11 (providing background on how federal agencies participate in the legislative process).

26. *See* 5 U.S.C. § 701(a) (2012) (noting that judicial review under the Administrative Procedure Act is available “except to the extent that—(1) statutes preclude judicial review; or (2) agency action is committed to agency discretion by law”).

27. An agency's substantive legislative activities, which are not the subject of this Essay, go through White House review and preclearance. *See* OFFICE OF MGMT. & BUDGET, CIRCULAR A-19: LEGISLATIVE COORDINATION AND CLEARANCE (revised Sept. 20, 1979); *see also* WALKER, *supra* note 7, at 6–9 (discussing federal agency substantive legislative activities in greater detail).

Congress frequently requests technical assistance from agencies on proposed legislation. Congressional requests for technical assistance in statutory drafting can range from review of draft legislation to requests for the agency to draft legislation based on specifications provided by the Congressional requester. Despite the fact that technical assistance does not require OMB preclearance, there is some consistency in the assistance process across agencies. Agencies often provide technical drafting assistance on legislation that directly affects those agencies and respond to Congressional requests regardless of factors such as the likelihood of the legislation being enacted, its effect on the agency, or the party affiliation of the requesting Member. Agency actors involved in the process include the agency's legislative affairs office, program and policy experts, and legislative counsel. In some agencies, regulatory counsel also participate routinely. Moreover, agency responses range from oral discussions of general feedback to written memoranda to suggested legislative language or redlined suggestions on the draft legislation.²⁸

Elsewhere I have described this process as "legislating in the shadows,"²⁹ as the congressional requester generally expects the technical drafting assistance request and response to remain confidential—not to be disclosed to the other party in Congress, not to the public, and oftentimes not even to the White House. It turns out that the vast majority of legislative drafting conducted by federal agencies today is not agency-initiated substantive legislation, but confidential agency responses to congressional requests for technical drafting assistance.³⁰ Moreover, agencies report that they provide technical drafting assistance on the vast majority of proposed legislation that directly affects them and on most such legislation that gets enacted.³¹

This legislating in the shadows, as I have explored elsewhere, has important implications for administrative law doctrine and theory. On the one hand, it may support the growing scholarly call that agencies should be allowed to engage in more purposivist

28. ACUS Recommendations, *supra* note 7, at 78,162 (footnote omitted). My ACUS report delves into this process in much greater detail, reporting the findings from interviews at some twenty federal agencies, a follow-up anonymous survey at ten agencies, and detailed case studies on those ten agencies. See WALKER, *supra* note 7, at 11–28, 43–47 app. A (survey instrument), 48–90 apps. B–K (agency case studies).

29. Christopher J. Walker, *Legislating in the Shadows*, 165 U. PA. L. REV. (forthcoming 2017).

30. ACUS Recommendations, *supra* note 7, at 78,161.

31. See WALKER, *supra* note 7, at 13–16.

statutory interpretation (than their judicial counterparts) because of their expertise in legislative history and their substantial role in statutory drafting.³² Conversely, legislating in the shadows may cast some doubt on the foundations for judicial deference of agency statutory interpretations. Because “agencies are intimately involved in drafting the legislation that ultimately delegates to those agencies the authority to interpret the legislation,” I have argued, “many of the agency self-delegation criticisms raised against *Auer* deference could apply with some force to agency statutory interpretation and *Chevron* deference as well.”³³

For the purposes of this Essay, it is sufficient to appreciate that federal agencies often play a substantial role in drafting the statutes that empower the agencies to regulate and that these legislative activities are not subject to judicial oversight.

III. AGENCY STRUCTURE AND AGENCY LAWMAKING

Because these agency lawmaking activities are largely insulated from judicial review, it may be particularly important to understand the actors within the agency who influence these processes. As Jennifer Nou has recently observed, “[o]rganizational design choices can determine who controls the levers of influence, both formal and informal, within an administrative agency.”³⁴ Nou is not the first to make such an observation.³⁵ But she is certainly right that administrative law scholars are still not examining “internal administrative law” as much as we should when thinking about agency lawmaking and judicial review thereof.³⁶

This Part seeks to contribute in a modest fashion to the literature on internal administrative law by sketching out how agency structure differs in the provision of technical assistance in

32. Walker, *supra* note 29 (manuscript at 24–32).

33. *Id.* (manuscript at 4–5); *see also id.* (manuscript at 32–53) (outlining the cases for and against *Chevron* deference in light of the role of federal agencies in the legislative process).

34. Jennifer Nou, *Intra-Agency Coordination*, 129 HARV. L. REV. 421, 422 (2015); *see also* Daniel Carpenter, *Internal Governance of Agencies: The Sieve, the Shove, the Show*, 129 HARV. L. REV. F. 189, 192 (2016) (“Nou’s typology of intra-agency coordination mechanisms offers a helpful place to start for lawyers and scholars studying this question in the future. These conceptual guides would be as useful in a public management, public policy, or political science class as they would be in an administrative law course.”).

35. *See, e.g.*, ROBERT A. KATZMANN, *REGULATORY BUREAUCRACY: THE FEDERAL TRADE COMMISSION AND ANTITRUST POLICY* 7 (Martha Weinberg & Benjamin Page eds., 1980) (“Organizational arrangements have much to do with determining how power is distributed among participants in the decision-making process, the manner in which information is gathered, the types of data that are collected, the kinds of policy issues that are discussed, the choices that are made, and the ways in which decisions are implemented.”).

36. Nou, *supra* note 34, at 427 (quoting, *inter alia*, Jerry L. Mashaw, *Federal Administration and Administrative Law in the Gilded Age*, 119 YALE L.J. 1362, 1470 (2010)).

legislative drafting. Part III.A details the three main structural models for the agency as a whole, whereas Part III.B focuses on the varying structures of the agency general counsel office.

A. Agency Organizational Models

Each agency profiled in my ACUS report has a distinct organizational model for providing technical drafting assistance.³⁷ Despite the important differences among agencies, three general models emerge from the ten agency case studies in the report: (1) a centralized legislative counsel model; (2) a decentralized agency experts model; and (3) a centralized legislative affairs model. Each model will be addressed in turn, including a brief discussion of the advantages and disadvantages of each model.

1. Centralized Legislative Counsel Model

The predominant model among the agencies profiled in the report is one where the legislative counsel within the agency general counsel office is the primary drafter and coordinator of all technical assistance responses.³⁸ To be sure, the legislative affairs office remains the official liaison to Congress and generally the first agency contact for a technical drafting assistance request. But once the request is received, the legislative affairs staff turns over the drafting coordination to the agency's legislative counsel. These agency lawyers reach out to the agency's policy and program experts and other officials where appropriate. When the technical assistance request is complete, the legislative counsel send it back to the legislative affairs staff to officially communicate back to the congressional requester. At times, however, informal communications have already taken place between the legislative counsel (and other agency experts that have been involved in the process) before the legislative affairs staff receives the technical assistance response. Other times, the legislative affairs staff facilitates the communications between the congressional requester and the relevant agency personnel, including the legislative counsel.

This model has several advantages that are particularly relevant to executive agencies. First, legislative counsel often have

37. WALKER, *supra* note 7, at 48–86 apps. B–K (exploring those differences in detail in the ten agency case studies). Part III.A draws substantially from *id.* at 28–30.

38. This model, with some substantial variations, has been adopted by the Departments of Agriculture, Education, Energy, Homeland Security, Housing and Urban Development, and Labor. *See also id.* at 67–71 app. G (detailing that the Department of Health and Human Services has a hybrid organizational structure somewhere between the centralized legislative counsel model and the centralized legislative affairs model).

more expertise in legislative drafting than legislative affairs staffers. After all, legislative counsel have law degrees and training in statutory interpretation, whereas that is not always the case with legislative affairs staffers. At many agencies, there also tends to be less turnover—and thus more institutional knowledge retained—among legislative counsel. But perhaps more importantly, legislative counsel are career civil servants, whereas legislative affairs staffers often are political appointees (or at least the office heads and deputies are political appointees).

During the interviews many agencies officials emphasized the important career–political division between legislative counsel and legislative affairs for maintaining the agency’s status with Congress as an expert, nonpartisan provider of technical drafting assistance. For instance, officials at the Department of Health and Human Services—among others—listed this as one of the agency’s best practices: “Having [legislative affairs] deal directly with Congress—and the politics that may be implicated when dealing with Congress—allows the [Office of General Counsel] Legislation Division (and the rest of the Department) to maintain its role as an expert, nonpolitical counselor on legislative drafting.”³⁹ Indeed, ACUS appears to have embraced this best practice, recommending that “[a]gencies should maintain the distinct roles of, and strong working relationships among, their legislative affairs personnel, policy and program experts, and legislative counsel.”⁴⁰

2. Decentralized Agency Experts Model

One agency profiled in my ACUS report—the Department of Commerce—has adopted a more decentralized agency experts model.⁴¹ This model also seems to have been adopted by (at least) the Department of Treasury and to some extent the Federal Communications Commission.⁴² Under this model, the legislative affairs office serves as the gatekeeper and official congressional liaison. But instead of sending technical drafting assistance requests to a centralized legislative counsel office, the requests are typically handled by the bureau-level policy and program experts (and agency legal counsel, where applicable). The agency general

39. *Id.* at 29.

40. ACUS Recommendations, *supra* note 7, at 78,163.

41. WALKER, *supra* note 7, at 52–55 app. C (providing an overview of the technical drafting assistance process at the Department of Commerce).

42. Neither agency was profiled in my ACUS report, but this finding emerged during interviews at a number of agencies. *See id.* at 29.

counsel office only gets involved with cross-agency legislation or where otherwise determined helpful or necessary.⁴³

This decentralized model perhaps better leverages the bureau-level agency experts and gets the requests more quickly before the agency officials best situated to substantively and technically review the proposed legislation. But it may do so at the cost of not involving the lawyers who are experts in legislative drafting and who may be more aware of common drafting problems and cross-cutting agency issues. Under this model, moreover, the legislative affairs staff may have to play a more involved role in developing the agency's response, which could frustrate the political-career division in executive agencies discussed in Part III.A.1.

3. Centralized Legislative Affairs Model

The final model centralizes the technical drafting assistance process within the legislative affairs office, as opposed to within the legislative counsel's office. This model has developed at independent agencies—among the agencies profiled in my ACUS report, the Federal Reserve System⁴⁴—where the legislative affairs staff consists of career civil servants, not political appointees. In this model, the legislative affairs staff coordinates the process with the agency's program and policy experts and relies on the agency general counsel office when appropriate.⁴⁵

B. General Counsel Office Organizational Models

There are also important differences in how agency general counsel offices are organized that could affect how agencies provide technical drafting assistance (as well as how they draft regulations). In most agencies, the legislative counsel and regulatory counsel are not housed in the same office, and they do not assist each other in legislative drafting and rule drafting, respectively. Indeed, seven of the ten agencies profiled in my ACUS report indicated that their regulatory counsel are rarely (six agencies) or never (one agency) involved in responding to technical drafting assistance requests,

43. *Id.*

44. *Id.* at 64–66 app. F (providing an overview of the technical drafting assistance process at the Board of Governors of the Federal Reserve System).

45. The Pension Benefit Guaranty Corporation has a variant of this model. There, the agency general counsel office is the primary coordinator for technical drafting responses. The majority of technical requests from Congress, however, deal with requests for economic modeling for proposed legislation and not requests for legislative language review. Those requests are handled by the legislative affairs staff (there, the Office of Policy and External Affairs). *Id.* at 86–90 app. K (providing an overview of the technical drafting assistance process at the Pension Benefit Guaranty Corporation).

with another agency indicating sometimes and the remaining two indicating usually.⁴⁶ In other words, at most agencies the lawyers who draft the regulations and the lawyers who help draft the legislation do not directly interact.

At the Department of Energy and the Department of Housing and Urban Development, by contrast, those lawyers are housed in the same division; indeed, they work on both legislative and rule drafting.⁴⁷ At both of these agencies, a consistent theme from the agency interviews was that this consolidated structure helped the agency leverage its legislative experience in providing technical drafting assistance in the rulemaking process and vice versa. Because the legislative and rule drafters are one and the same, the agency is better positioned to utilize its expertise from helping to draft the statute when it drafts the rules that implement the statute. Similarly, because the legislative drafters at the agency also drafted the agency's implementing regulations, those lawyers can more easily share the agency's extensive expertise with Congress regarding the agency's experience in implementing the statutory and regulatory scheme.

This does not mean that those agencies with separate legislative and regulatory counsel offices do not leverage the agency expertise gained from both drafting activities. The agency's expertise in the legislative history and process that resulted in the legislation is likely indirectly transmitted to the lawyers who actually interpret that statute. After all, seven of the ten agencies surveyed indicated that agency program/policy experts always (two agencies) or usually (five agencies) participate in the technical assistance process, with the remainder indicating sometimes (two agencies) or rarely (one agency).⁴⁸ This is consistent with the findings of another study, in which about nine in ten (89%) agency officials surveyed indicated that they "always notify affected parties within their agency of potential legislation."⁴⁹ As one agency respondent in that study observed, "We are the technical drafters, but the program clients drive the policy. They are the ones carrying out the policy so they know it much better than we do."⁵⁰

In sum, although there may not be a direct link between the legislative and regulatory lawyers at the vast majority of agencies profiled in my ACUS report, the program/policy experts likely help

46. *Id.* at 22 fig.3.

47. *Id.* at 60–63 app. E, 77–80 app. I (providing an overview of the technical drafting assistance process at the Department of Energy and the Department of Housing and Urban Development, respectively).

48. *Id.* at 22 fig.3.

49. Jarrod Shobe, *Agencies as Legislators: An Empirical Study of the Role of Agencies in the Legislative Process*, 85 GEO. WASH. L. REV. 451, 483 (2017).

50. *Id.* at 484.

bridge that gap, at least to some extent, by consulting with both sets of lawyers during their drafting processes. And these agencies may pursue other means of bridging the regulatory/legislative gap. Indeed, ACUS expressly recommended that agencies better leverage expertise along these lines:

[A]gencies should consider ways to better identify and involve the appropriate agency experts—in particular, the relevant agency policy and program personnel in addition to the legislative drafting experts—in the technical drafting assistance process. These efforts may involve, for example, establishing an internal agency distribution list for technical drafting assistance requests and maintaining an internal list of appropriate agency policy and program contacts.⁵¹

Notwithstanding, much more work needs to be done to better understand how agency general counsel offices—and federal agencies more generally—can structure their organizations and processes to better leverage agency expertise when assisting Congress in drafting statutes and when drafting rules that aim to capture statutory purpose and congressional wishes.

IV. CONCLUSION

The study of administrative law fixates on judicial review, with inquiries into internal administrative law often neglected. One virtue of examining agency action that is insulated from judicial review is that we are forced to consider other actors and factors that enable and constrain agency action. Congress and the President—the political branches—obviously play an important role, as do interest groups, regulated entities, and the public more generally. Jon Michaels's work on administrative separation of powers becomes all the more important in a world without judicial review, as we must consider "subconstitutional separation of powers that triangulates administrative power among politically appointed agency leaders, an independent civil service, and a vibrant civil society."⁵²

We must also, as this Essay has endeavored to do, look inside the agency to understand how agency structures and processes may affect the substance of agency lawmaking activities. Among the various agency officials involved in agency lawmaking activities,

51. ACUS Recommendations, *supra* note 7, at 78,163. My ACUS report provides additional guidance on this front. See WALKER, *supra* note 7, at 35–36.

52. Jon D. Michaels, *An Enduring, Evolving Separation of Powers*, 115 COLUM. L. REV. 515, 520 (2015).

civil-servant lawyers play a critical role—both in drafting regulations and in assisting Congress in statutory drafting. These agency lawyers survive changes in presidential administration, and they often outlast their congressional counterparts. Not only do agency lawyers have the technical expertise in drafting legal texts, but they also often have extensive experience in the statutory and regulatory scheme and in the drafting history that resulted in those laws and regulations.

Because of agency lawyers' staying power in the modern administrative state, it is particularly important to understand how the agency general counsel office fits within an agency's overall organization and how the agency general counsel office is structured to leverage the expertise of their regulatory and legislative counsel. We must better understand how decisions regarding institutional design may shape an agency's substantive lawmaking. This Essay only begins to scratch the surface of this important inquiry; much more work needs to be done.

**ENVIRONMENTAL LAWMAKING
WITHIN FEDERAL AGENCIES AND
WITHOUT JUDICIAL REVIEW**

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A combination of institutional and disciplinary factors make U.S. environmental law unusually subject to the discretion of administrative agencies. This dependence on agency discretion heightens the impact of internal agency operations on the substance of U.S. environmental law. As a result, internal agency dynamics have a particular power within environmental law, over and above what might be expected in general administrative law contexts.

I. INTRODUCTION

In his essay on *Lawmaking Within Federal Agencies and Without Judicial Review*, Christopher Walker explores two ways that agencies operate with limited judicial oversight: through “drafting the legislation that empowers them to regulate,” and through exercising “broad discretion within that congressionally delegated authority to choose how to regulate.”¹ As Walker explains, the two mechanisms are interrelated because the “vast amount of agency lawmaking [that] escapes judicial review . . . suggests that it is all the more important to understand the key players *within* the agency that engage in these legislative and regulatory activities.”²

Walker’s analysis is directed towards agencies in general, and as such, his insights are meant to apply with equal helpfulness to any kind of administrative law without courts—whether that administrative law is environmental or not. Walker’s emphasis on the importance of internal agency operation as a determinant of substantive administrative law is a valuable tonic to the common scholarly preoccupation with judicial review, and situates the essay

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1. Christopher J. Walker, *Lawmaking Within Federal Agencies and Without Judicial Review*, 32 J. LAND USE & ENVTL. L. 551 (2017).

2. *Id.* at 552 (emphasis original).

within a growing literature in administrative law exploring the importance and implications of internal agency organization.³ Further, Walker's spotlighting of the potential role that agencies can play in drafting their own statutes is both original and illuminating,⁴ and stands as an example of the power agencies can exert over administrative law in the absence of meaningful judicial review.

Walker does not explicitly focus on environmental lawmaking. Yet this response essay will suggest that internal agency dynamics like those Walker identifies have the power to play an especially important role in the operation of U.S. environmental law. That is because institutional and disciplinary factors often combine to make environmental injury unusually resistant to control by both the judiciary and the executive, leaving U.S. agencies administering environmental law with an unusually large space to exercise their discretion.

This capacious discretion forms at the intersection of U.S. legal institutions and the distinctive qualities of environmental injury. At heart, environmental law concerns itself with the management of environmental impacts.⁵ I have argued elsewhere that this distinguishes it from other types of law, which tend to focus on shaping human behavior as an end as well as a means.⁶ Environmental law attempts to shape human behavior as well, but it does so instrumentally, as a method for managing environmental impacts.⁷

The fact that environmental law is often concerned with dispersed, complex, and nonhuman impacts⁸ creates at least three

3. See, e.g., Neal Kumar Katyal, *Internal Separation of Powers: Checking Today's Most Dangerous Branch From Within*, 115 YALE L.J. 2314, 2322 (2006); Gillian E. Metzger, *The Interdependent Relationship Between Internal and External Separation of Powers*, 59 EMORY L.J. 423, 428–30 (2009); Jennifer Nou, *Intra-Agency Coordination*, 129 HARV. L. REV. 421, 423 (2015); Jon D. Michaels, *An Enduring, Evolving Separation of Powers*, 115 COLUM. L. REV. 515, 520 (2015).

4. Walker builds on his own prior work documenting agencies' roles in providing technical assistance in legislative drafting. See Christopher J. Walker, *Inside Agency Statutory Interpretation*, 67 STAN. L. REV. 999 (2015) (presenting the results of an original survey of agency rule drafters).

5. See Richard J. Lazarus, *Restoring What's Environmental About Environmental Law in the Supreme Court*, 47 UCLA L. REV. 703 (2000) ("What makes environmental law distinctive is largely traceable to the nature of the injury that environmental protection law seeks to reduce, minimize, or sometimes prevent altogether. Environmental law is concerned, in the first instance, with impacts on the natural environment."); ARDEN ROWELL & JOSEPHINE VAN ZEBEN, A PRIMER ON ENVIRONMENTAL LAW: THE UNITED STATES (forthcoming 2018) ("Environmental law regulates human behavior in light of its environmental impacts.").

6. See Arden Rowell, *Behavioral Instruments in Environmental Law*, in ENCYCLOPEDIA OF ENVIRONMENTAL LAW (Ken Richards & Josephine van Zeben eds., forthcoming 2018) (arguing that "environmental law is necessarily concerned with a measure of success that is (1) more dispersed, (2) more latent, (3) more causally complex, and (4) less human in its focus than most other legal fields").

7. *Id.*

8. See ROWELL & VAN ZEBEN, *supra* note 5 (arguing that "environmental law regulates human behavior in light of its environmental impacts", and arguing that environmental impacts are distinctively diffuse, complex, and nonhuman in character); Lazarus, *supra*

kinds of special hurdles for U.S. legal institutions, and for courts in particular. First, the causal complexity posed by the management of environmental impacts—and the concurrent relationship with science—poses information barriers for non-specialists (including generalist courts and executive political appointees) attempting to control environmental agency decisions. Second, the dispersed nature of environmental impacts pose institutional difficulties for a judicial system intent on adjudicating (only) concrete “cases and controversies,” and for a political branch who is answerable to particular stakeholders. And finally, the moral and ethical puzzles created by environmental impacts on future generations and on nonhuman animals, plants, and ecosystems can make courts uncomfortable and bureaucrats intransigent.

The remainder of this essay expands on the ways that environmental law interacts distinctively with the judiciary and the executive, to result in what can be a kind of “bonus discretion” for agencies managing environmental impacts. More particularly, it argues that, as a practical matter, the special qualities of environmental injury can afford agencies even greater discretion for environmental decisions than for other types of administrative law issues. The essay concludes with some reflections on how bonus discretion afforded agencies in environmental law puts additional pressure on—or offers additional opportunity for—internal agency dynamics to shape the substance of environmental policy.

II. ENVIRONMENTAL RESISTANCE TO JUDICIAL CONTROL

Building on a long tradition in administrative law, Walker and other authors in this Symposium have noted the high level of deference that courts generally afford agencies when they are acting within the zone of their expertise—a deference that amounts to a kind of “*Chevron* space” for regulating without judicial interference.⁹ Here, I want to build on that general background to suggest

note 5, at 744–48 (2000) (arguing that environmental injury has these recurring features: “irreversible, catastrophic, and continuing injury”; “physically distant injury”; “temporally distant injury”; “uncertainty and risk”; “multiple causes”; and “noneconomic, nonhuman character”).

9. See Walker, *supra* note 1, at 554–57 (2017) (citing Peter L. Strauss, “Deference” Is Too Confusing—Let’s Call Them “Chevron Space” and “Skidmore Weight,” 112 COLUM. L. REV. 1143, 1145 (2012)); see also Robert L. Glicksman & Emily Hammond, *Agency Behavior and Discretion on Remand*, 32 J. LAND USE & ENVTL. L. 483 (2017); David L. Markell, *Agency Motivations in Exercising Discretion*, 32 J. LAND USE & ENVTL. L. 513 (2017); see generally *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837 (1984) (establishing the famously deferential *Chevron* two-step test for whether a court will defer to an agency interpretation of a statute that it administers of (1) “whether Congress has directly spoken to the precise question at issue,” and if not, (2) whether the agency’s interpretation is “permissible”).

that, where the injuries an agency is managing are environmental in nature, the agency often enjoys a “bonus” to the level of discretion it can exercise—an extra-large “space” that extends even beyond the normal “*Chevron* space” for regulating without judicial interference. This bonus space for supplemental environmental discretion comes from the nature of environmental injuries, which tend to be dispersed, causally complex, and nonhuman—and thus particularly difficult to manage through the judicial system, for reasons summarized below. The practical result is to provide additional insulation from judicial review—or a greater “space without courts”—for agencies managing environmental injury.

Courts are generalists; the greater the expertise needed to trace causality, and the greater the burden of technical information needed to trace multiple causes and multiple effects, the greater courts stand at an institutional and informational disadvantage to agencies, and the more willing they are to defer.¹⁰ Of course expertise is a traditional justification for agency involvement in any type of administrative law, and concurrently a functional limit on the judicial role.¹¹ Yet for environmental law, this complexity interacts with its other features: particularly, with the fact that its impacts are often distant in space and time, and that they may be nonhuman in character, despite having potentially important implications for human populations.

U.S. courts adjudicate “cases and controversies,” a fundamental institutional role traceable to the Constitution, and embodied most strikingly in the judicial doctrine of standing.¹² To establish standing, courts require plaintiffs to satisfy each element of a three-prong

10. See *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 377 (1989) (noting that courts must defer to agencies when the dispute involves a high level of expertise); *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 103 (1983) (noting that courts should be most deferential when agency determinations involve technical issues at the frontiers of science); *Lands Council v. McNair*, 537 F.3d 981, 988 (9th Cir. 2008) (rejecting what the court characterized as an invitation to act as a “panel of scientists” in reviewing the scientific findings of the Forest Service, and opining that “this is not a proper role for a federal appellate court”).

11. See Antonin Scalia, *Judicial Deference to Administrative Interpretations of Law*, 1989 Duke L.J. 511, 514 (1989) (“The cases, old and new, that accept administrative interpretations, often refer to the ‘expertise’ of the agencies in question, their intense familiarity with the history and purposes of the legislation at issue, their practical knowledge of what will best effectuate those purposes. In other words, they are more likely than the courts to reach the correct result.”).

12. See *Allen v. Wright*, 468 U.S. 737, 750 (1984) (explaining that standing doctrine stems from the premise that “Article III of the Constitution confines the federal courts to adjudicating actual ‘cases’ and ‘controversies’”) (citing U.S. CONST. art. III.); see also Antonin Scalia, *The Doctrine of Standing as an Essential Element of the Separation of Powers*, 17 SUFFOLK U. L. REV. 881 (1983) (articulating the thesis that modern standing doctrine—as adopted subsequently by the Supreme Court—is essential to the constitutional separation of powers); Cass R. Sunstein, *What’s Standing After Lujan? Of Citizen Suits, “Injuries,” and Article III*, 91 Mich. L. REV. 163 (1992) (discussing the constitutional implications of modern standing doctrine post-*Lujan*, and arguing that the modern formulation is not required by the Constitution).

test: (1) that the plaintiff has suffered a concrete and particularized injury in fact that is actual or imminent; (2) that the injury is fairly traceable to the action of the defendant; and (3) that it is likely, and not just speculative, that the injury will be redressed by a favorable decision by the court.¹³ Plaintiffs unable to establish any of these elements are barred from bringing a judicial claim, regardless of the substance of that claim—even if the statute explicitly grants the plaintiff a statutory right to sue, as many environmental statutes do.¹⁴ This functionally excludes plaintiffs who experience a general injury rather than a particularized one; who have experienced a probabilistic injury, or expect a future injury, rather than a concrete or imminent injury; who are unable to trace the causal chain of harm; or who cannot show that the harm experienced is remediable by courts.

Consider the classic *Lujan v. Defenders of Wildlife* as a case in point.¹⁵ In the case, which concerned the extraterritorial reach of the Endangered Species Act, the Supreme Court failed even to reach the question of whether the Department of the Interior had acted within its discretion. In light of a probabilistic injury accruing indirectly to foreign endangered nonhuman animals, even a sophisticated environmental group was unable to effectively establish standing to challenge the agency action. Because even the most skeptical of judicial review standards will not overturn an agency action if there is no standing, the standard of deference offered to the agency thus became immaterial. As a result, the agency in *Lujan* had—as environmental agencies often do—functional discretion that stretches beyond even the permissive bounds of *Chevron* deference.¹⁶

This does not mean that plaintiffs claiming environmental injury will always be excluded from a courtroom on the basis of standing;¹⁷ while environmental injuries may tend to be dispersed across time and space, causally complex, and nonhuman in character, not all injuries are equally these things. That said, modern

13. See *Lujan v. Defs. of Wildlife*, 504 U.S. 555, 560–61 (1992). This formulation overturned the prior and far-more-liberal formulation of the test for standing articulated in *Ass'n of Data Processing Serv. Orgs. v. Camp*, 397 U.S. 150, 153 (1970), which inquired into “legal interest,” and which was commonly understood to grant a “favored position” within environmental law. See Michael A. Perino, *Justice Scalia: Standing, Environmental Law, and the Supreme Court*, 135 B.C. ENVTL. AFF. L. REV. 135, 144–48 (1987) (describing the “favored position” environmental law enjoyed under the *Data Processing* test for standing).

14. See *Spokeo, Inc. v. Robins*, 136 S. Ct. 1540, 1543 (2016) (explaining that standing requires a “concrete and particularized” injury even in the face of statutory citizen suit provisions).

15. See *Lujan*, 504 U.S. at 560–61. For a discussion of the implications of *Lujan*, see Sunstein, *supra* note 122.

16. See *Chevron, U.S.A., Inc. v. Nat. Res. Def. Council*, 467 U.S. 837 (1984).

17. See Sunstein, *supra* note 122, at 224–27 (discussing “easy cases” for environmental injuries in standing).

standing doctrine categorically excludes exactly those types of injuries that are most characteristic of environmental injury:¹⁸ injuries that tend to be spatially dispersed across a population and/or that tend to occur in the future rather than immediately will struggle to establish concrete and particularized injury in fact; injuries for which causal proof is too complicated or challenging to establish, even where causation does exist, will struggle to establish that an impact is fairly traceable to the actions of the defendant; and injuries for which the primary damage is to nonhuman plants, animals, or ecosystems will struggle to establish redressibility—and injuries that combine these qualities will struggle on all three prongs.

In sum, agency decisions regarding environmental injury enjoy even greater insulation from judicial review than non-environmental decisions, because the agency gets not only the benefit of general discretion, but also the “bonus space” from protections afforded by the fact that dispersed, causally-complex, and nonhuman injuries are often functionally excluded from judicial review. Agencies administering environmental law thus enjoy an unusually broad—and significantly court-less—policy space in which to make substantive decisions. This means that the dynamic Walker notes for general agencies—that their internal decisionmaking processes increase in substantive importance as discretion broadens¹⁹—applies with heightened force to environmental contexts, where agency discretion is unusually expansive.

III. ENVIRONMENTAL RESISTANCE TO EXECUTIVE CONTROL

The distinctive qualities of environmental injury also offer important barriers to substantive control of environmental policy by the executive—a dynamic that is particularly important to note given that, as above, modern standing doctrine grants agencies managing environmental impacts bonus discretion even beyond what they experience in general administrative law.

One of the key ways in which environmental law poses unusual challenges to executive control is through the mechanism of bureaucratic resistance, discussed in more detail below. The result of combined limitations of executive and judicial control is that environmental law is unusually subject to the discretion of agencies.

18. This has led some commentators to call for a change to the doctrine, see, e.g., Sunstein, *supra* note 122 (arguing that the standing doctrine adopted in *Lujan* is not constitutionally required), and/or the development of special standards or procedures for review of environmental claims, see, e.g., Timothy C. Hodits, *The Fatal Flaw of Standing: A Proposal for an Article I Tribunal for Environmental Claims*, 84 WASH. U. L. REV. 1907 (2006), even as others continue to defend the current approach as constitutionally required, see Scalia, *supra* note 122.

19. See *supra* note 2 and attached text.

Bureaucratic resistance has a long tradition in the administrative state.²⁰ Resistance—or what Rosemary O’Leary picturesquely calls “guerrilla government”—arises when career public servants work against the wishes of their superiors.²¹

An important aspect of bureaucratic resistance is that it often implicates the distinctions and relationships between political appointees—who are answerable directly to the President, and who serve limited terms—and career bureaucrats, who are dischargeable only for cause, and who generally spend their careers in public service. Generally, political appointees must rely upon career bureaucrats to implement the policies that the President prefers. When bureaucrats engage in resistance, then, they are generally resisting the control of the executive.

Although legal literatures on agency information asymmetry have largely focused on the information gap between agencies and external actors,²² there is also a pervasive information gap between political appointees and career bureaucrats. This gap is particularly wide where the issues to be regulated are highly technical; the bureaucrats responsible for implementing the regulation may have spent years, decades, or even entire careers building the scientific and technical record for a rule, whereas political appointees have only the expertise that was necessary to gain them nomination and Senate confirmation. This gap is likely to be quite large even when appointees are well-credentialed, simply because—like judges—no appointee can be a specialist in everything. Where appointees are poorly-credentialed and/or where they have only short periods to educate themselves about the agency they are directing, the information asymmetry between them and the bureaucrats they direct will be even greater. This point may prove particularly important during the Trump Administration, where in a slow transition with relatively few appointees confirmed or even

20. See ROSEMARY O’LEARY, *THE ETHICS OF DISSENT: MANAGING GUERRILLA GOVERNMENT* (2013); JOHN BREHM & SCOTT GATES, *WORKING, SHIRKING, AND SABOTAGE: BUREAUCRATIC RESPONSE TO A DEMOCRATIC PUBLIC* (1999).

21. See O’LEARY, *supra* note 20, at xi.

22. See, e.g., Mathew McCubbin, Roger Noll & Barry Weingast (“McNollgast”), *Administrative Procedures as Instruments of Political Control*, 3 J. OF LAW, ECON. & ORG. 243 (1987) (providing a classic presentation of how Congress can use administrative procedures to manage the inevitable principal-agent problems involved in delegating to administrative agencies); Lisa Bressman, *Procedures as Politics in Administrative Law*, 107 COLUM. L. REV. 1749 (2007) (applying principal-agent analyses to the judicial management of agency decisions).

nominated,²³ there has nevertheless already been significant turnover,²⁴ and where even supporters of the President concede that many political appointees lack credentials in government.²⁵

While the information asymmetry between appointees and bureaucrats can arise across agencies, the complex, dispersed, and nonhuman quality of environmental injuries mean that they often require significant information to understand, much less to control. Perhaps in part for this reason, while bureaucratic resistance exists across the regulatory state, important examples of resistance have frequently arisen within environmental agencies.²⁶ Strategies for resistance have included exit, as where bureaucrats resign in protest;²⁷ leaking, either to the media or to other parts of government, such as the Inspector General;²⁸ formally recording dissent;²⁹ building a factual record to contravene the executive's preferred policy

23. See Julie Hirschfeld Davis & Sharon LaFraniere, *Trump Lets Key Offices Gather Dust Amid 'Slowest Transition in Decades,'* N.Y. TIMES (Mar. 12, 2017), <https://www.nytimes.com/2017/03/12/us/politics/trump-administration.html>.

24. See, e.g., Senior Trump Appointee Fired After Critical Comments, FORTUNE (Feb. 19, 2017), <http://fortune.com/2017/02/19/trump-fired-craig-deare/>.

25. See, e.g., Jim Geraghty, *The Cabinet Crapshoot*, NAT'L REVIEW (Jan. 19, 2017), <http://www.nationalreview.com/article/444025/donald-trump-cabinet-nominees-qualifications-dont-guarantee-performance> (suggesting that being qualified may be overrated, as "[s]ometimes the nominees who seem the most qualified fail most disastrously"); c.f., e.g., Paul Waldman, *Donald Trump has assembled the worst Cabinet in American history*, WASH. POST (Jan. 19, 2017), https://www.washingtonpost.com/blogs/plum-line/wp/2017/01/19/donald-trump-has-assembled-the-worst-cabinet-in-american-history/?utm_term=.f67fb462b0a7 (criticizing Trump's appointees' lack of credentials and experience in government).

26. For a nuanced discussion of multiple examples of resistance, see O'LEARY, *supra* note 20. Note that three of O'Leary's four main case studies of bureaucratic resistance are at environmental agencies.

27. Although it is more common for political appointees to resign in protest, as with the recent resignation of Susan Hedman, the head of the Midwest region of the EPA in protest over the water contamination crisis in Flint, Michigan, career civil servants—bureaucrats—have also done so in unusual circumstances. For example, the Department of State's entire senior administrative team resigned less than a week after President Trump took office, presumably as a form of resistance to his policies. See Josh Rogin, *The State Department's entire senior administrative team just resigned*, WASH. POST (Jan. 26, 2017), https://www.washingtonpost.com/news/josh-rogin/wp/2017/01/26/the-state-departments-entire-senior-management-team-just-resigned/?utm_term=.09fff789964b. For a classic discussion of employees' option to exit, see ALBERT O. HIRSCHMAN, *EXIT, VOICE, AND LOYALTY: RESPONSES TO DECLINE IN FIRMS, ORGANIZATIONS AND STATES* (1970).

28. Recent leaks at the EPA have disclosed executive memoranda directing agency staffers to halt communications with the public, among other things. See Michael Bastasch, *Career EPA Staffers Will Undermine Trump, Leak to the Press*, DAILY CALLER (Jan. 23, 2017) <http://dailycaller.com/2017/01/23/source-career-epa-staffers-will-undermine-trump-leak-to-the-press/>. Other well-known recent bureaucratic leaks include that by Private First Class Bradley Manning, who leaked hundreds of classified documents to WikiLeaks, which publishes online submissions of secret information from anonymous sources and whistleblowers; and the surveillance leaks by Edward Snowden, a government contractor who leaked to the Guardian. For further discussion of leaks, see O'LEARY, *supra* note 20.

29. For example, in 2009, Alan Carlin, an EPA economist, drafted a formal report that was critical of EPA's scientific position on carbon dioxide. When he felt that the report was inappropriately ignored, he reported to Congress and issued interviews to the press. See John M. Broder, *Behind the Furor Over a Climate Change Skeptic*, N.Y. TIMES (Sept. 24, 2009), <http://www.nytimes.com/2009/09/25/science/earth/25epa.html>.

outcome;³⁰ and foot-dragging and intentional slow-down.³¹ At the time of writing, we are just seeing the first seeds of this type of resistance unfurling against recent orders by President Trump, in the form of “alternative” social media accounts³² and persistent leaks.³³ Perhaps unsurprisingly, this resistance blossomed first at environmental agencies, including the National Park Service and the Environmental Protection Agency (EPA),³⁴ and in many cases has involved the treatment of scientific information.³⁵

Another important theory attempting to predict and explain when bureaucrats are likely to resist executive control—an influential account developed by political scientist Dwight Waldo—also provides reason to suspect that environmental policy may provide an unusually fruitful bed for bureaucratic resistance to executive

30. Arguably, this was the strategy pursued by EPA staffers in resisting President George W. Bush's policy to deemphasize climate change. See Jennifer Nou, *Bureaucracy from Below*, NOTICE & COMMENT (Nov. 16, 2016), <http://yalejreg.com/nc/bureaucratic-resistance-from-below-by-jennifer-nou/> (arguing that “[r]ecord-building was arguably the tactic used by EPA career staff who issued an advance notice of proposed rulemaking regarding the ability of the agency to regulate greenhouse gases under existing statutory authorities. Career officials helped compile over 600 pages outlining numerous legal paths to regulation, despite an unusual preface by the Bush-appointed EPA Administrator noting his personal skepticism. Building the record later helped pave the way for further regulatory action.”).

31. *But see* BREHM & GATES, *supra* note 20, at 107–08 (finding that this form of resistance is surprisingly rare).

32. The establishment of “alternative” agency social media accounts came after the National Park Service's Twitter account was shut down, reportedly because it had posted pictures showing that crowds at President Trump's inauguration were significantly smaller than crowds at President Obama's. Soon after, the Twitter account of the Badlands National Park tweeted a reminder of the agency's statutory mandate and a number of climate-change facts before also being shut down. In the following days, a number of alternative social media accounts were created, putatively run by bureaucrats at those agencies. Although the first alternative accounts were from agencies with primarily environmental missions—the EPA @ActualEPAfacts, and the National Park Service @AltNatParkSer—other science-based agencies have now also followed suit. See Steve Gorman, *Defying Trump, Twitter feeds for the U.S. government scientists go rogue*, REUTERS (Jan. 26, 2017), <http://www.reuters.com/article/us-usa-trump-resist-idUSKBN15A0DI>.

33. See Bastasch, *supra* note 28.

34. Both agencies administer multiple environmental statutes, and in addition, have explicitly pro-environmental mission statements. See *Our Mission and What We Do*, ENVTL. PROT. AGENCY, <https://www.epa.gov/aboutepa/our-mission-and-what-we-do> (last visited Apr. 18, 2017) (“The mission of EPA is to protect human health and the environment.”); *About Us*, NAT'L PARK SERV., <https://www.nps.gov/aboutus/index.htm> (last visited Apr. 18, 2017) (“The National Park Service preserves unimpaired the natural and cultural resources and values of the National Park System for the enjoyment, education, and inspiration of this and future generations.”).

35. See, e.g., Andrew Griffin, *Donald Trump plans to ‘reform’ the way environmental agency uses science, report claims*, THE INDEPENDENT (Jan. 23, 2017), <http://www.independent.co.uk/news/science/donald-trump-plan-reform-epa-environmental-protection-agency-science-climate-change-report-a7542191.html>; Elena Cresci, *National Parks Service ‘goes rogue’ in response to Trump Twitter ban*, THE GUARDIAN (Jan. 25, 2017), <https://www.theguardian.com/technology/news-blog/2017/jan/25/national-parks-service-goes-rogue-in-response-to-trump-twitter-ban>; see also Mindy Weisberger, *“Rogue” Science Agencies Defy Trump Administration on Twitter*, SCIENTIFIC AMERICAN (Jan. 27, 2017), <https://www.scientificamerican.com/article/ldquo-rogue-rdquo-science-agencies-defy-trump-administration-on-twitter/>.

control.³⁶ Waldo attempted to track the moral and ethical obligations that bureaucrats feel, and explains their decisionmaking by reference to this map of obligations.³⁷ These include obligations to “organizational-bureaucratic norms,” “profession and professionalism,” “public interest or general welfare,” and “humanity or the world.”³⁸ Of the latter, Waldo explains that “[i]t is an old idea, and perhaps despite all a growing idea, that an obligation is owed to humanity in general, to the world as a total entity, to the future as the symbol and summation of all that can be hoped . . . [I]t figures prominently in the environmental ethic and in ecological politics.”³⁹ Because environmental law implicates distinctively dispersed, complex, and nonhuman injuries, environmental issues present sources of moral and ethical obligations—such as obligations to future generations, the scientific community, the global community, and/or nonhuman plants, animals, or ecosystems—that may be additive to the typical obligations that public servants feel to their country, their colleagues, and the public. Public servants who have chosen to work in environmental regulation, and/or at agencies with explicit environmental purposes, may feel these commitments particularly strongly. Such obligations may provide powerful motivation for resisting attempts at executive control, over and above the types of motivation that can arise in other more general administrative contexts.

Environmental law thus supports two distinctive but interactive challenges to executive control: its difficult subject matter makes it hard for political appointees to manage, and the ethical aspects of many of its commitments makes it subject to bureaucratic resistance. The substantial information asymmetry that commonly exists between environmental political appointees and environmental career bureaucrats weakens the executive’s opportunities to effect control of environmental issues even as bureaucrats themselves may feel ethically or morally entrenched in resistant positions. Furthermore, these forms of environmental resistance to executive control can interact with the bonus discretion that

36. See O’LEARY, *supra* note 20 (summarizing a number of theories of when and where bureaucrats might be prone to resistance).

37. See Dwight Waldo, *Public Administration and Ethics: A Prologue to a Preface*, in PUBLIC ADMINISTRATION: CONCEPTS AND CASES 460, 463–65 (1996) (identifying twelve obligations: “Ethical Obligations and the Public Service,” “The Constitution,” “Law,” “Nation or Country,” “Democracy,” “Organizational-Bureaucratic Norms,” “Profession and Professionalism,” “Family and Friends,” “Self,” “Middle-Range Collectives,” “Public Interest or General Welfare,” “Humanity or the World,” and “Religion, or to God.”).

38. See *id.* at 463–65 (noting that these are not exhaustive, but are rather subject to “indefinite expansion”).

39. *Id.* at 465.

environmental agencies enjoy free from judicial control. The consequence is a truly and unusually expansive space for environmental agencies to exercise their discretion.

IV. CONCLUSIONS AND IMPLICATIONS

In the framing for his essay on *Lawmaking Within Federal Agencies and Without Judicial Review*, Christopher Walker recognizes an important dynamic: that as agencies are insulated from judicial review, substantive administrative policy is increasingly sensitive to internal agency decisionmaking. Walker goes on to identify the potential substantive importance of agency organization as it relates to the drafting of agency statutes. Walker's analysis applies generally to lawmaking within agencies, but this response essay has pointed to several reasons that Walker's analysis may play a particularly heightened role in understanding the administration of environmental law.

Environmental law is fundamentally concerned with the management of environmental impacts, which tend to be nonhuman in character, causally complex, and dispersed in space and time. These qualities present particular challenges to judicial review under standing requirements that demand that injuries be particularized, causally traceable, and judicially redressible. The result is that agencies administering environmental policies enjoy a sort of "bonus discretion" that goes beyond even the deferential *Chevron* standard for agencies interpreting statutes they administer. This means that, when agencies administer environmental law, they are constrained even less by courts than is normal within our highly discretionary administrative state. Within the unusually capacious world of environmental law without courts, the internal dynamics of agency decisionmaking become increasingly central to environmental law.

Furthermore, the focus of environmental law on dispersed, complex, and nonhuman injury also presents opportunity for disconnect between agency employees and the executive. The scientific and technical nature of environmental questions sets up heightened information asymmetry between political appointees and career bureaucrats, posing a potential barrier for presidents to effectively implement environmental policy where there is a lack of buy-in from career civil servants. And the moral and ethical implications of many environmental issues may provide particularly firm ground for bureaucrats to resist executive control as well. The result is that agencies experience heightened discretion when administering

environmental issues—discretion that operates in many ways without either courts or the executive. Much of this greater discretion flows directly from the difficulty of the underlying subject-matter, which makes environmental issues legitimately challenging to address, and which heightens the importance of science and expertise in understanding and managing environmental policy. Insofar as this suggests that environmental policy may be peculiarly resistant even to aggressive judicial or executive control, it highlights still further the importance of understanding the role that internal agency dynamics play in the selection and implementation of substantive policy.

THE LONG SHADOW OF JUDICIAL REVIEW

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I. INTRODUCTION

This Symposium, *Environmental Law Without Courts*, is meant to complement the symposium held at Florida State University in Fall 2014, *Environmental Law Without Congress*.¹ Consistent with the structure of *Environmental Law Without Congress*, most principal articles focus on agency programs or functions that are not directly affected by the courts because they are either not subject to judicial review or subject to such deferential review that such review is seen as inconsequential to agency decisionmaking with respect to those tasks. One might therefore surmise that, as suggested by this year's symposium title, courts do not and cannot affect these agency tasks in any meaningful ways. My contribution to this symposium, which is a Comment on the entire symposium theme as reflected in several of the principal articles, suggests that such a conjecture may not be justified—that, in fact, all of the articles to which I am responding focus on functions affected by courts via judicial review of other aspects of agency decisionmaking. In short, my thesis is that judicial review can cast a long shadow that has effects (perhaps even profound effects) on actions that are not meaningfully subject to such review.

This Comment begins by considering Emily Bremer and Sharon Jacobs' article,² which explores how agencies choose procedures within the expanse left vacant by *Vermont Yankee's* holding that courts are not to supplement explicit constitutional or statutory procedural requirements. I argue that, although discretion to make such choices is best left with the agency, there is a need to constrain

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1. Symposium, *Environmental Law Without Congress*, 30 J. LAND USE & ENVTL. L. 1 (2014).

2. Emily Bremer & Sharon Jacobs, *Agency Innovation in Vermont Yankee's White Space*, 32 J. LAND USE & ENVTL. L. 523 (2017) [hereinafter *Vermont Yankee's White Space*].

such discretion, and the best way to do so may be by substantive review of the final agency action.

Next I proceed to consider the article by Rob Glicksman and Emily Hammond discussing agency reactions to judicial remands.³ The action this article considers is a bit different from that in the first article I discuss because courts have already influenced the agency action at issue by reversing and remanding the matter. In fact, in many instances, the remand order includes specific instructions to the agency about how to proceed. Hammond and Glicksman, however, look at those remands in which the court has not significantly constrained the agency discretion about how to react. Factors that might influence how the agency proceeds are myriad, but I contend that the prospect of judicial review to any action the agency takes in following up on the remand is an important influence on how the agency is likely to proceed.

Finally, I turn to Christopher Walker's article discussing agency participation in drafting legislation that bears on areas within the agency jurisdiction.⁴ Walker concludes that agency drafting is more likely to reflect what Congress prefers if the agency legal staff that engages in drafting rulemaking gets involved in legislative drafting—that is if legislative input comes from those lawyers in counsel's office that are involved in enacting rules, not just an isolated cadre of lawyers dedicated to interacting with Congress. Legislative drafting is the function perhaps most removed from judicial influence. One would suspect that constraints on agency participation in legislative drafting would be entirely political given that Congress must still vote whether to enact any bill and, if passed by both houses, the President would have to decide whether to sign it for approval. Hence, judicial influence on legislative drafting would seem to be both inappropriate and unnecessary. Nonetheless, I suggest that even for this function, courts matter. I speculate that arbitrary and capricious review of rulemaking, as currently practiced by courts, has been responsible for the inclusion of a variety of professional perspectives in agency rulemaking teams, and that this structure of rulemaking teams would influence agency legislative drafting toward a broader conception of the public interest.

3. Robert Glicksman & Emily Hammond, *Agency Behavior and Discretion on Remand*, 32 J. LAND USE & ENVTL. L. 483 (2017).

4. Christopher Walker, *Lawmaking Within Federal Agencies and Without Judicial Review*, 32 J. LAND USE & ENVTL. L. 551 (2017).

II. THE RECORD ON JUDICIAL REVIEW AND AGENCY PROCEDURAL AND STRUCTURAL DISCRETION

Bremer and Jacobs begin their contribution to this symposium with a description and defense of *Vermont Yankee's* basic holding that agencies should have discretion to determine procedures for the actions that they are authorized to take over and above procedures explicitly required by the constitution and statutes.⁵ *Vermont Yankee's White Space* insightfully notes that discretion has two meanings: the freedom to negotiate the bounds of standards free from hard and fast rules, but also “exercise of sound judgment.”⁶ Bremer and Jacobs argue that giving agencies discretion over procedures in the former sense will encourage the exercise of discretion in the latter sense because (i) outcomes often depend on the procedures used to reach them; (ii) agencies operate under extreme resource constraints, which require trading off the benefits derived from adding procedure against those lost due to investment of resources better devoted to another action; and (iii) agencies have far more “complete, systemic information” about the industry that they regulate than do the courts.⁷ Bremer and Jacobs concede that giving agencies greater control over procedures may have some negative impacts, such as proliferation of administrative procedures that vary from agency to agency, or even decision to decision—variety that can decrease regulatory transparency, and procedures that may reflect agency parochialism, which can interfere with interests that fall outside the agencies perceived purview.⁸

An aside, but one that is potentially relevant to my ultimate proposal about how courts might constrain agency procedural discretion, addresses Bremer and Jacobs' contention that judicial review of agency process has been accused of ossifying agency decisionmaking processes.⁹ Regardless whether that is true, the review that has most often been accused of ossifying agency action is what most scholars would deem substantive review under the reasoned decisionmaking standard laid out in *State Farm*.¹⁰ One might characterize that review as process based in the sense that

5. *Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 543–45 (1978); Bremer & Jacobs, *supra* note 2, at 523–25.

6. Bremer & Jacobs, *supra* note 2, at 540.

7. *Id.* at 541–42.

8. *Id.* at 542.

9. *Id.* at 536.

10. See *Motor Vehicle Manufacturers Ass'n v. State Farm Mutual Automobile Ins. Co.*, 463 U.S. 29 (1983); Frank B. Cross, *Pragmatic Pathologies of Judicial Review of Administrative Rulemaking*, 78 N.C. L. REV. 1013, 1019–57 (2000) (attributing “discrete pathological effects” including ossification, to judicial review); Thomas O. McGarity, *Some Thoughts on “Deossifying” the Rulemaking Process*, 41 DUKE L.J. 1385, 1410–16 (1992) (arguing that judicial review has ossified the agency rulemaking process).

the agency can often correct problems that cause courts to reverse their actions by some process, such as further reasoning, added fact-finding, or modifications of the action to avoid problems at the margins.¹¹ But, such review is not the requirement of procedures in the sense *Vermont Yankee* understood that term, because the courts simply consider whether the substance of the agency decision under review is adequate, and leave the agency discretion about how to cure any such inadequacy if an action is reversed. The very history of *Vermont Yankee* demonstrates quite clearly, that the case did not mean to cut off potentially exacting review of an agency's reasons for its actions because the Supreme Court case reviewed a split *en banc* decision of the D.C. Circuit, in which the debate was not about the outcome of the case, but whether reversal was to be based on failure to provide adequate procedures in the eyes of the court (Judge Bazelon's long held preferred approach to review) rather than a judicial determination, after much delving into the substance of the decision, that the agency had failed to adequately explain the substance of its decision (Judge Leventhal's "hard look" approach).¹² The Supreme Court clearly rejected the Bazelon approach, but also left open on remand whether the court should apply Leventhal's hard look test. Hence, this Comment accepts hard look review as substantive rather than procedural review, and hence not within *Vermont Yankee*'s "white space" that Bremer and Jacobs defend from judicial interference.

I agree wholeheartedly with Bremer and Jacobs' arguments for why agencies are better suited than courts to choose procedures by which they will act so long as those procedures comply with the floor set by the Constitution, the Administrative Procedure Act (APA), and the statute authorizing agency action. Agencies' needs to weigh resource constraints, and agencies' superior institutional capacity, vis-à-vis courts, to recognize the incentives stakeholders in their regulatory processes may have to abuse procedures and, more generally, the ramifications of choosing specific procedures on

11. See Gary Lawson, *Outcome, Procedure and Process: Agency Duties of Explanation for Legal Conclusions*, 48 RUTGERS U. L. REV. 313, 318–19 (1996) (noting that reasoned decision requirement relates to agency process); Mark Seidenfeld, *Cognitive Loafing, Social Conformity, and Judicial Review of Agency Rulemaking*, 87 CORNELL L. REV. 486, 518 (2002) (explaining that "the 'hard-look' or 'relevant factors' rubric, is almost entirely a process-based evaluation").

12. See Ronald J. Krotoszynski, Jr., "History Belongs to the Winners": *The Bazelon-Leventhal Debate and the Continuing Relevance of the Process/Substance Dichotomy in Judicial Review of Agency Action*, 58 ADMIN. L. REV. 995, 996–99 (2006); Peter L. Strauss, *Changing Times: The APA at Fifty*, 63 U. CHI. L. REV. 1389, 1407–08 (1996) (describing the "fundamental disagreement about appropriate judicial function" that set the stage for *Vermont Yankee*); Patricia M. Wald, *Judicial Review in Midpassage: The Uneasy Partnership Between Courts and Agencies Plays On*, 32 TULSA L.J. 221, 225–26, 228–29 (1996) (reviewing the "well-publicized debate between Judges Bazelon and Leventhal").

substantive outcomes, render agencies far better suited to design their decisionmaking procedures.¹³ Agencies have a much closer connection to the stakeholders affected by their regulatory actions, and are more likely to know whether a position taken by a participant in a proceeding reflects a valid concern rather than, for instance, a strategic effort to delay action that is not in the participant's interest.¹⁴ Therefore, it is important to leave decisionmaking discretion to the expert agencies. Moreover, in an insightful article written by Justice Scalia when he was a mere administrative law professor shortly after *Vermont Yankee* was decided, he argued that procedures are not always intended to facilitate the agency reaching the most justifiable substantive outcome.¹⁵ In fact, Scalia claimed Congress often includes administrative procedural requirements in authorizing statutes to bias future administrative outcomes.¹⁶ And Scalia's intuitions are well supported by Positive Political Theory, which explains how control over procedures can favor of groups in the prevailing legislative coalition.¹⁷ Hence, choice of procedure should be left to those actors that are politically accountable, such as Congress and agencies, rather than the courts.

That said, however, I do think that Bremer and Jacobs' assessment of *Vermont Yankee's* "white space" ignores the potential for agencies to abuse procedural discretion—essentially allowing an agency to adopt a rule or take other action that it cannot legitimately justify. Although agencies hold the potential for flexibility to reach regulatory outcomes that better serve the

13. See Adrienne Vermeule, *Essay: Deference and Due Process*, 129 HARV. L. REV. 1890, 1895 (2016) (stating "the law now takes into account the interdependence of procedure and substance, and understands that agency choice of procedures is an exercise in system design, which must allocate risks of error and determine the marginal benefits and costs of decisionmaking in light of administrative goals").

14. Cf. Edward Rubin, *Essay: The Myth of Accountability and the Anti-Administrative Impulse*, 103 MICH. L. REV. 2073, 2128–29 (2005) ("Specifying procedures demands extensive knowledge on the supervisor's part, because the results that the procedures will produce will now depend on an ongoing interaction between the agency and outside parties who are capable of strategic action.").

15. Antonin Scalia, *Vermont Yankee: The APA, The D.C. Circuit, and the Supreme Court*, 1978 SUP. CT. REV. 345, 404–08.

16. *Id.* at 404–05 (stating "one of the functions of procedure is to limit power—not just the power to be unfair, but the power to act in a political mode, or the power to act at all").

17. Mathew D. McCubbins, Roger G. Noll & Barry R. Weingast, *Administrative Procedures as Instruments of Political Control*, 3 J.L. ECON. & ORG. 243, 253–55 (1987) (describing how Congress can use agency procedure to ensure fidelity to the congressionally preferred outcomes); Matthew D. McCubbins, Roger G. Noll & Barry R. Weingast, *Structure and Process, Politics and Policy: Administrative Arrangements and the Political Control of Agencies*, 75 VA. L. REV. 431, 440–41 (1989) ("If the best policy from the perspective of the winning coalition depends on arcane information or is uncertain because of frequent changes in the state of knowledge about the problem that the policy is supposed to ameliorate . . . [a] means of achieving the policy outcome that the coalition would have adopted in the absence of uncertainty is to constrain an agency's policies through its structure and process by enfranchising the constituents of each political actor . . . that is a party to the agreement to [control agency] policy.").

public than do the courts, they might also have competing incentives. Perhaps the agency has “gone native,” and seeks to pursue the policy preferences of its staff members rather than the balance of interests it authorizing statute meant to promote.¹⁸ Perhaps the agency has been given a mandate by a political principal—the President or the Chair of congressional committees that oversees the agency’s programs—that the agency would have difficulty justifying in light of its statutory responsibilities or the state of the matters it regulates.¹⁹ Or, more likely, the agency simply finds procedural shortcuts to be attractive means of reducing the burdens it faces in order to adopt a rule or otherwise implement a policy. Recent academic commentary is rife with discussion of how agencies sometimes use their discretion to choose modes of decisionmaking to avoid public participation, shield themselves from judicial review, and even to fly under the radar of executive branch or congressional review.²⁰

What Bremer and Jacobs elide is that, although agencies have the capacity to choose procedures that best serve the public interest, simultaneously they often do not have the incentives to choose those optimal procedures. The challenge for administrative law is to structure the administrative state to permit the agency discretion to deliver on its promise of superior expertise and accountability vis-à-vis the courts, while constraining the agency from responding to any perverse incentives it may have to deviate from that promise.

I would like to suggest a strategy to meet this challenge that both affords the agency sufficient space free from judicial review, and aligns agency incentives to avoid encouraging agencies to abuse procedures to facilitate illegitimate substantive decisions. The key

18. See E. Donald Elliott, *TQM-ing OMB: Or Why Regulatory Review Under Executive Order 12,291 Works Poorly and What President Clinton Should Do About It*, 57 LAW & CONTEMP. PROBS. 167, 176 (1994); Bruce Ackerman, *The New Separation of Powers*, 113 HARV. L. REV. 633, 700–01 (2000).

19. See Mark Seidenfeld, *The Role of Politics in a Deliberative Model of the Administrative State*, 81 GEO. WASH. L. REV. 1397, 1453–54 (2013) (describing problems with allowing the president to dictate agency policy).

20. See, e.g., Nina A. Mendelson, *Regulatory Beneficiaries and Informal Agency Policymaking*, 92 CORNELL L. REV. 397, 408 (2007) (concluding that agencies can use guidance documents to “obtain a rule-like effect while minimizing political oversight and avoiding the procedural discipline, public participation, and judicial accountability required by the APA”); Mark Seidenfeld, *Substituting Substantive for Procedural Review of Guidance Documents*, 90 TEX. L. REV. 331, 343–44 (2011) (discussing how guidance documents can allow an agency to avoid judicial review); James T. Hamilton & Christopher H. Schroeder, *Strategic Regulators and the Choice of Rulemaking Procedures: The Selection of Formal vs. Informal Rules in Regulating Hazardous Waste*, 57 LAW & CONTEMP. PROBS. 111, 130–32 (1994) (conjecturing that agencies will use informal rulemaking to avoid judicial oversight and political cost); Jennifer Nou, *Agency Self-Insulation Under Presidential Review*, 126 HARV. L. REV. 1755, 1771 (2013) (“resource-constrained agencies can choose among various regulatory forms and strategies to achieve their desired results while at the same time making it more difficult for the institutional President to review and reverse them”).

to this strategy, oxymoronically, is judicial review of the substance of agency decisionmaking, not the procedure the agency used to reach that substantive decision.

Let me illustrate how this might work with the following conundrum with which courts have struggled regarding agency notice and comment rulemaking. Courts have recognized that if comments in agency rulemaking are to be meaningful, the agency must provide interested persons with access to information and analyses on which the agency relies to justify the ultimate rule it adopts.²¹ When the agency relies on data or analyses to develop a notice of proposed rulemaking (NOPR), there is consensus that the agency must cite studies or make available data on which that development relies.²² That is an easy case because once the NOPR is developed, the agency knows on what information it relied, and can cite the relevant studies or make the relevant data available to potential commenters as part of the NOPR. Providing access to the relevant information is relatively costless and allows for meaningful participation by commenters.

Courts, however, have not reached consensus about how to address the situation where an agency relies on data or analyses in response to comments.²³ In that situation, if the agency relies on the

21. See, e.g., *United States v. Nova Scotia Food Prods. Corp.*, 568 F.2d 240 (2d Cir. 1977); *Portland Cement Ass'n v. Ruckelshaus*, 486 F.2d 375, 392–93 (D.C. Cir. 1973) (discussing the EPA's testing standards and disclosures); see also *Chamber of Comm. v. SEC*, 443 F.3d 890, 899 (D.C. Cir. 2006) (noting that technical studies must be made available to the public for evaluation); *Conn. Light & Power Co. v. Nuclear Reg. Comm'n*, 673 F.2d 525, 530–31 & n.6 (D.C. Cir. 1982).

22. See Cass R. Sunstein, "Practically Binding": *General Policy Statements and Notice-and-Comment Rulemaking*, 68 ADMIN L. REV. 491, 509 (2016).

23. The *Nova Scotia* court suggested that an agency cannot rely on data to support its final rule if that data was not subjected to an opportunity for comment. *United States v. Nova Scotia*, 568 F.2d 240, 252 (1977). Other courts have ruled that an agency can rely on such information, but usually only if the petitioner was not prejudiced by the agency failure to reveal the information. See, e.g., *Am. Coke & Coal Chems. Inst. v. EPA*, 452 F.3d 930, 939–41 (D.C. Cir. 2006) (holding that the agency need not reopen the comment period when "the agency gave adequate notice of the procedures it intended to use, the criteria by which it intended to select data, and the range of alternative sources of data it was considering," and the agency ultimately relied on data available to the petitioner but which it had declined to rely in developing its NOPR); *Kern County Farm Bureau v. Allen*, 450 F.3d 1072, 1078–79 (9th Cir. 2006) (not requiring the agency to issue a supplemental NOPR when new studies were not claimed to be inaccurate and did "not provide the sole, essential support for the listing decision," but instead "provid[ed] additional grounds for the well-supported conclusions in the Proposed Rule"). But in *Idaho Farm Bureau Fed'n v. Babbitt*, 58 F.3d 1392, 1403–04 (9th Cir. 2007) the Ninth Circuit rejected the listing of an endangered species because the post-comment report on which the agency relied was the only scientific information supporting the listing, the report was a provisional draft, and the report was "central" to the agency decision. And in *Ober v. EPA*, 84 F.3d 304 (9th Cir. 1996), the court reopened the comment period to allow comments on supplemental material provided by California in a rulemaking considering approval of an SIP for Phoenix, Arizona. The court reasoned that the supplemental information was critical to the EPA's approval, and was information submitted by Arizona rather than information developed by the EPA itself. *Id.* at 314-15.

information after the comment period has closed, as usually is the case, then stakeholders would have no opportunity to comment on the agency response. It will first learn about the new information only after the agency adopts a final rule and indicates its reliance on the data or analyses. To pose the matter most starkly, suppose that the agency conducts its own studies that generate data in response to comments critical of the agency reasoning in its NOPR. In that case, one cannot fault commenters for failing to address the data that is relevant to their comments because the data did not even exist. One might surmise that the agency obligation to provide meaningful opportunity to comment would require that the agency renounce the rule, including any additional data and analyses on which it relied and providing an opportunity for comment on the new information.

But, whether a court should require such renouncing for inadequacy of the NOPR in such a situation is no longer an easy question. On the one hand, if the new data is never subjected to meaningful comment, the data may be inaccurate or the agency analyses of it may be flawed. The agency might even strategically wait until after comments to indicate reliance on data that is suspect, to avoid scrutiny of that data. Moreover, in *Citizens to Protect Overton Park*, the Supreme Court held that generally the record on judicial review is the record that was before the agency when it made its decision.²⁴ Were courts to follow that holding, opponents of the final agency rule would never have an opportunity to present their critique of the information on which the agency relied. On the other hand, those who oppose any final rule have every incentive to delay the issuance of the rule even if they do not have a legitimate substantive basis for challenging the rule.²⁵ Hence, one can bet that virtually anytime an agency relies on information never subject to comment, opponents of the rule would proffer some critique of the new information to trigger any renounce requirement recognized by the courts. And this scenario invites the prospect of multiple renounce periods: the agency relies on new information; in their second round of comments, opponents proffer critiques of such reliance; the agency reanalyzes the second round of comments and responds with new data or information; the opponents proffer critiques of the agency response to the second round of comments; and on it goes.²⁶ In fact, if an agency is required

24. *Citizens to Preserve Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971).

25. Cf. Matthew T. Wansley, *Regulation of Emerging Risks*, 69 VAND. L. REV. 401, 409 (2016) (“Firms that seek to avoid regulation can strategically use the informational demands of notice and comment rulemaking to delay or prevent new rules.”).

26. “Courts, however, are loathe to require ‘perpetual cycles of new notice and comment periods,’ and accordingly will not require new information to be subject to comment unless it

to renounce any additional information on which it relies to justify its final rule, one can envision regulated entities revealing just enough information in each round of subsequent comments to raise questions about the new information, withholding from the agency relevant information that may be useful to respond to the agency response to the first round of objections. The incentive of rule opponents to strategically proffer objections that prove unfounded thus threatens to delay adoption of the final rule greatly, or even to stymie it altogether if the agency determines that the rulemaking effort is not worth it given the added costs of procedure and the lost value from not having the rule apply during the delay.

This seems like a situation for which potential for agency abuse justifies judicial intervention into *Vermont Yankee's* "white space," but also for which arguments for procedural white space resonate. But judicial review of the substance of the agency rule, if properly structured, can ameliorate this conundrum. Courts should, as a matter of course, allow a rule challenger to include in the record on judicial review information that was only made relevant by agency post-comment data or analyses.²⁷ Courts should not automatically credit such extra-agency-record information, but instead should decide, whether the information indicates a significant probability that the agency's data or justification for its rule is inaccurate or fundamentally incomplete. The parties will essentially have the

is dramatically and qualitatively different from information available at the start of the rulemaking." Jack M. Beerbaum & Gary Lawson, *Reprocessing Vermont Yankee*, 75 GEO. WASH. L. REV. 856, 894 (2007).

27. Courts have purported to recognize exceptions to the record on review as defined by *Overton Park*, allowing judges to consider extra-record evidence when an agency has "ignored relevant factors," or for scientific and technical evidence, when the extra-record evidence "may illuminate whether an [environmental impact statement] has neglected to mention a serious environmental consequence, failed adequately to discuss some reasonable alternative, or otherwise swept stubborn problems or serious criticism . . . under the rug." *Lee v. U.S. Air Force*, 354 F.3d 1229, 1242 (10th Cir. 2004) (internal quotation marks omitted). But courts rarely find such exceptions warranted. In fact, in most cases that recognize an exception to *Overton Park's* limitation on judicial consideration of extra-record evidence in the abstract, the court declines to find that the exception applies. *See, e.g., id.* at 1242 (neither the record nor preliminary review of proffered extra-record evidence convinced the court that admission of that evidence was warranted); *Or. Nat. Res. Council v. Lowe*, 109 F.3d 521 (9th Cir. 1997) (rejecting petitioner's proffer of studies more recent than those relied on by the Forest Service in developing an Environmental Impact Statement because the studies relied on by the Forest Service were not so outdated as to render the reliance arbitrary and capricious). Courts are more apt to apply exceptions to *Overton Park's* definition of the judicial record to cases seeking review of an EIS under NEPA, and even then, only in the most clear-cut cases where the agency seems to have ignored information of which it should have been aware independent of comments. *Cf. Vt. Yankee Nuclear Power Corp. v. Nat. Res. Def. Council, Inc.*, 435 U.S. 519, 551-55 (1978) (holding that the Nuclear Regulatory Commission (NRC) did not have to consider conservation as an alternative to licensing a nuclear power plant even when comments mentioned this alternative but did not signal its significance, and essentially refusing to consider documents raising conservation as a serious alternative to licensing because those documents did not exist until after the agency completed hearings on the licensing, albeit before the agency issued the license).

opportunity to litigate before the reviewing court whether the challengers' proffered information is relevant and material to the agency decision under review.

Creating an opportunity for interested persons to have the court consider information potentially made relevant by the agency's introduction of data or analyses post-comments still leaves the decision whether to renotice with the agency. But it creates an opportunity for those opposed to an agency substantive decision to elevate their concerns to a point where they show up on Congress's political radar screen.²⁸ It also creates an incentive for the agency to take seriously interested persons' potentially relevant information and to avoid responding to comments with sloppy or knowingly flawed data or analyses.²⁹ Of course, the agency would have to be aware of the extra-agency-record information when it decides whether to renotice because of such information. But an agency could ensure such awareness by requiring that anyone challenging a rule petition for reconsideration of the adoption of the rule, and holding the rule in abeyance until the time for such petitions passes.³⁰ And, once aware of the information that the challenger would put before a reviewing court, the agency could use its expertise to decide whether the criticism of its rule, supported by the petitioner's information, posed a sufficiently serious threat to affirmance on review to warrant renoticing. If the agency was comfortable that the added petitioner information was just an effort to delay the rule for no good reason, and that it could explain why its decision was well-reasoned and sound despite not considering that information, it could simply deny the petition for reconsideration. If instead the agency felt that it would itself need to add more data and analyses to justify the rule given the petitioner's information, it could grant the petition for reconsideration and renotice the rule with the data and analyses the agency thought crucial in the updated NOPR.

The advantage of substantive review, properly structured, to cabin agency procedural choices is that it leaves the agency

28. Cf. Mathew D. McCubbins & Thomas Schwartz, *Congressional Oversight Overlooked: Police Patrols versus Fire Alarms*, 28 AM. J. POL. SCI. 165, 176 (1984).

29. Cf. Seidenfeld, *supra* note 20, at 390-92 (arguing that judicial review of guidance documents using extra-record considerations will encourage agency staff to encourage informal participation by stakeholders to shield the agency from surprises raised for the first time on judicial review).

30. See 5 U.S.C. § 704 (2012) (implying that an agency decision is not final if the agency requires a petition for reconsideration and meanwhile holds the rule inoperative). This would not necessarily delay the effective date of the rule. For example, the agency could require petitions for reconsideration to be filed within fifteen days of the publication of the final rule, which would give the agency fifteen more days to decide whether the petition warrants noticing before the rule would take effect under the APA. See 5 U.S.C. § 553(d) (2012) (a rule shall be published at least thirty days before its effective date).

procedural discretion formally unfettered, while providing an incentive for agencies to avoid procedures that allow sloppy or illegitimate substantive outcomes to survive political and judicial review.

III. THE THREAT OF SUBSTANTIVE REVERSAL AFTER REMAND

Glicksman and Hammond consider agency discretion in responding to a judicial remand of an agency action. As Glicksman noted in his presentation at the symposium, it is a bit strange to be focusing on cases in which the courts have remanded an action because petitioners were successful on judicial review in a symposium on environmental law without the courts. It is perhaps even stranger in light of the fact that in many cases when a court remands a challenge to agency action, the court will retain jurisdiction and provide fairly explicit instructions about how the agency is to proceed.³¹ But Glicksman and Hammond omit these cases from their consideration, leaving cases on remand in which the agency does retain discretion about how to proceed. They then ask what factors bear on how an agency will proceed. I contend that one of the factors agencies are almost certainly likely to consider is the likelihood that they will be successful on judicial review if they persist in taking the action that the court rejected the first time.

I am not going to perform an empirical analysis of the factors that are likely to influence an agency post-remand. But, I will look at some cases, including perhaps some that Glicksman and Hammond discuss to try to develop a convincing story that the threat of subsequent judicial review is an important factor in the agency decision. Before I do so, however, I draw attention to several distinctions that are likely to change an agency calculation of how to proceed after remand. One important distinction is whether the remand is after review of an affirmative agency action, rather than of agency refusal to grant a petition requiring the agency to take an action the agency would prefer not to take. In Glicksman and Hammond's terminology, whether the remand is of an agency action or refusal to act reflects the valence of the underlying action: that is whether the agency favors or opposes the action.³²

Remands of affirmative action by the agency are relevant only when the reversal is not dispositive of the ultimate outcome of the agency action, such as when the court has found the action to be arbitrary and capricious or there was a procedural flaw in its

31. *See, e.g.*, *Sullivan v. Hudson*, 490 U.S. 877, 887–88 (1989) (noting “the remanding court continues to retain jurisdiction over the action . . . and may exercise that jurisdiction to determine if its legal instructions on remand have been followed . . .”).

32. Glicksman & Hammond, *supra* note 3, at 496–97.

promulgation. Within those categories of cases, whether the court has vacated the decision, or instead remanded without vacatur,³³ is another distinction that Glicksman and Hammond find material.³⁴

When a court vacates and remands an affirmative agency action such as adoption of a rule, the agency essentially is in a similar position as when deciding whether to promulgate a rule in the first place. In the remand context, the agency will already have developed a record; this will also be true when an agency decides whether to adopt a rule after conducting a notice and comment proceeding. Usually after going through notice and comment the agency does decide to adopt a rule, but there are rulemaking proceedings for which the agency does not promulgate a rule following notice and comment.³⁵ In such situations, the agency can formally decide not to issue a rule, or simply allow the rulemaking record to lie moribund. An important distinction between an agency decision whether to proceed with a rule after a notice and comment proceeding and a decision whether to proceed after remand and vacatur is that the agency has a signal from the court about the precise problems the court found with the rule, and the probability that the court will affirm repromulgation of it.³⁶

Given the similarity of the agency discretion whether to try to repromulgate a rule that has been remanded, and the agency discretion whether to promulgate a rule in the initial instance, one would suspect that the probabilities of both actions would be similar. And, in fact, just as the agencies usually adopt rules once they have gone through the rulemaking process, they also usually repromulgate rules that have been vacated and remanded as arbitrary and capricious. According to the 2000 study by Bill Jordan, after remand agencies not only tried, but usually were able to reenact the same or very similar rules to ones that were reversed.³⁷

33. For an overview and evaluation of remand without vacatur, see Kristina Daugirdas, *Evaluating Remand Without Vacatur: A New Judicial Remedy for Defective Agency Rulemakings*, 80 N.Y.U. L. REV. 278, 297 (2005) (discussing the D.C. Circuit's application of the remand without vacatur); Ronald M. Levin, "Vacation" at Sea: *Judicial Remedies and Equitable Discretion in Administrative Law*, 53 DUKE L.J. 291, 298–99 (2003) (explaining why many courts elect to remand agency rules found to be unlawful under section 706(2) of the APA while allowing the rule to remain in force).

34. Glicksman & Hammond, *supra* note 3, at 489–90.

35. See, e.g., *Profl Pilots Fed'n v. FAA*, 118 F.3d 758, 770 (affirming the FAA decision not to amend its rule prohibiting individuals over the age of sixty from piloting commercial flights).

36. "The decision whether to vacate depends on 'the seriousness of the order's deficiencies (and thus the extent of doubt whether the agency chose correctly) and the disruptive consequences of an interim change that may itself be changed.'" *Allied-Signal, Inc. v. U.S. Nuclear Reg. Comm'n*, 988 F.2d 146, 150–51 (D.C. Cir. 1993) (quoting *International Union, UMW v. FMSHA*, 920 F.2d 960, 967 (D.C. Cir. 1990)).

37. See William S. Jordan, III, *Ossification Revisited: Does Arbitrary and Capricious Review Significantly Interfere with Agency Ability to Achieve Regulatory Goals Through Informal Rulemaking?*, 94 NW. U. L. REV. 393, 418 tbl.3, 436, 438–39 (2000) (determining that

Nonetheless, there are exceptions to agency repromulgation of rules that have been reversed and remanded. For example, in *Corrosion Proof Fittings*, after EPA spent ten years on rulemaking virtually banning asbestos in manufacturing and products imported into the U.S., the Fifth Circuit reversed and remanded the EPA rule for, among other reasons, being arbitrary and capricious.³⁸ The court's ultimate conclusion stated:

In summary, of most concern to us is that the EPA has failed to implement the dictates of TSCA and the prior decisions of this and other courts that, before it impose a ban on a product, it first evaluate and then reject the less burdensome alternatives laid out for it by Congress. While the EPA spent much time and care crafting its asbestos regulation, its explicit failure to consider the alternatives required of it by Congress deprived its final rule of the reasonable basis it needed to survive judicial scrutiny

Finally, the EPA failed to provide a reasonable basis for the purported benefits of its proposed rule by refusing to evaluate the toxicity of likely substitute products that will be used to replace asbestos goods. While the EPA does not have the duty under TSCA of affirmatively seeking out and testing all possible substitutes, when an interested party comes forward with credible evidence that the planned substitutes present a significant, or even greater, toxic risk than the substance in question, the agency must make a formal finding on the record that its proposed action still is both reasonable and warranted under TSCA.³⁹

The message to the agency was clear: meeting the reviewing court's arbitrary and capricious standard would be extremely difficult, and the court was unlikely to uphold a similar rule should EPA adopt one after remand. As far as I know, EPA never tried.

The situation changes when the reviewing court remands an agency rule without vacatur. *Michigan v. EPA*,⁴⁰ discussed by Glicksman and Hammond,⁴¹ is a good example of a case in which an agency is expected to repromulgate a rule that the courts have held unlawful but have not vacated. EPA promulgated a rule regulating

remand prevented the agency from pursuing its objective in only twelve of forty-eight rulemakings remanded by the D.C. Circuit between 1985 and 1995, and even most of those twelve remands did not represent reversals of significant agency policies).

38. *Corrosion Proof Fittings v. EPA*, 947 F.2d 1201 (5th Cir. 1991).

39. *Id.* at 1229–30.

40. *Michigan v. EPA*, 135 S.Ct. 2699 (2015).

41. Glicksman & Hammond, *supra* note 3, at 484, 492, 498.

mercury emissions from power plants under the Clean Air Act's hazardous pollutants program.⁴² The Supreme Court held that EPA erred when it interpreted the Clean Air Act to allow it to ignore costs in finding regulation of power plants under the program to be "appropriate and necessary."⁴³ By most accounts, EPA already had the data to justify regulation even considering costs prior to deciding to regulate.⁴⁴ On remand to the D.C. Circuit, that court refused to vacate the rule, and EPA indicated that it intended to provide the cost consideration justifying mercury regulation by April 15, 2016.⁴⁵ The rule remains in effect while the case winds its way back through the D.C. Circuit.⁴⁶

Allowing a rule to stay in place maintains the operation of the rule while the agency considers the remand. This might be thought to encourage the agency to use its rulemaking resources to address other matters. But remand without vacatur is also a signal that the court believes the agency will be able to justify the rule once the agency responds to the remand. Also, until the agency responds to the remand, the rule is vulnerable to being rescinded by a subsequent administration. Given the signal that the court is likely to affirm the rule if the agency takes care of the particular problems identified by the court when it remanded the rule, usually it will make sense for the agency to respond to the remand and obtain a final affirmance of the rule from the reviewing court. This is supported by the fact that for the three cases Glicksman and Hammond identify involving interstate air pollution regulation in which the D.C. Circuit had remanded without vacatur, the agency readopted something similar to the rule that had been remanded shortly before the following presidential election.⁴⁷

In the context of remand of an agency refusal to act, I would surmise that the agency reaction would again depend on the signal given by the judicial reversal of the agency decision. If the remand is grounded on a determination that the agency did not have freedom to refrain from acting, that would signal that the court is not likely to accept any rationale for continued failure to act. In the face of such a threat that the agency will never legally prevail, one would expect the agency to delay any decision, thereby

42. *Id.* at 2705.

43. *Id.* at 2706.

44. EPA acknowledged that benefits from reducing mercury air pollution were small compared to the costs of the regulation, but ancillary benefits from regulating other air pollutants greatly exceeded the costs of regulation. *Id.* at 2705–06.

45. *White Stallion Energy Center, LLC v. EPA*, No. 12-1100, 2015 WL 11051103, at *1 (D.C. Cir. Dec. 15, 2015) (per curiam).

46. It remains to be seen whether the election of Donald Trump as President will prompt EPA to abandon its efforts to support this rule.

47. Glicksman & Hammond, *supra* note 3, at 492–93 (citing cases).

maintaining the status quo that resulted from the lack of regulation. This seems borne out by the Bush Administration's reaction to the Supreme Court's decision in *Massachusetts v. EPA*.⁴⁸ Facing a Court from which the agency had essentially lost trust because it had asserted, among other things, that anthropomorphic climate change had not yet been proven, EPA dawdled and did not even try to respond to the Court's instruction: that "EPA can avoid taking further action only if it determines that greenhouse gases do not contribute to climate change or if it provides some reasonable explanation as to why it cannot or will not exercise its discretion to determine whether they do."⁴⁹ It was only after President Obama was elected that EPA focused on climate change and began to regulate greenhouse gas emissions.⁵⁰

The incentives are not as clear if the court seems solicitous of the agency control over its regulatory resources, and open to the agency giving more persuasive reasons or additional facts that support a refusal to regulate. There is little advantage to an agency obtaining an affirmance of this exercise of discretion because a judicial affirmance of agency discretion not to regulate does not prevent a subsequent administration from using its discretion to regulate. Hence, I would still expect an agency not to bother addressing a remand of a decision holding that the agency abused its discretion, or factually failed to support a discretionary decision not to regulate. There are two possible exceptions to this conclusion. First, an agency might proceed to respond to the remand if it believes that it can obtain a judicial decision that it had no authority to regulate, which would preclude a subsequent administration with a different view of such regulation from moving forward. But, it will be the rare case in which a reviewing court remands an agency failure to justify a decision to regulate when the court believes that regulation is prohibited by statute. Second, the agency might actually choose to regulate to relieve political pressure that might allow a subsequent administration to impose stricter regulation than the current administration would prefer to adopt. But, for matters of significant political import, this too will often be unlikely because the time necessary for the agency to adopt substantive regulations may be so great that the agency could not be sure of completing the task prior to the next presidential election.⁵¹

48. *Massachusetts v. EPA*, 549 U.S. 497 (2007).

49. *Id.* at 533.

50. 40 C.F.R. § 60.5515 (2016).

51. Sidney A. Shapiro, *Rulemaking Ossification and the Debate over Reforming Hard Look Review*, 41 FALL ADMIN. & REG. L. NEWS 13, 13 (2015) ("controversial and complex rules take anywhere from four to ten or more years to complete, not taking into account the additional delays associated with judicial review"); see also REGULATORY BREAKDOWN: THE CRISIS OF CONFIDENCE IN U.S. REGULATION (Cary Coglianese ed., 2012).

Overall, I think Glicksman and Hammond have identified an interesting set of decisions in which agencies exercise discretion whether to address a judicial remand or instead to pay it at most feigned attention. And they have identified most of the factors likely to influence that decision. My point, however, is that judicial review of any substantive decision is likely to affect the agency reaction to a remand, sometimes in crucial ways. Again, while the courts may not meaningfully review decisions whether to act affirmatively after a remand, such decisions are made in the shadow of potential substantive judicial review.

IV. AGENCY PARTICIPATION IN DRAFTING LEGISLATION

Walker addresses perhaps the agency activity most distant from the prospect of judicial review: agency participation in drafting legislation. In a prior article, *Legislating in the Shadows*, Walker reports an empirical study that demonstrates that, for most statutes addressing an agencies regulatory program, the agency is heavily involved in legislative drafting.⁵² Congressional staff turn to agencies for technical advice on how to draft statutes to achieve the ends desired by Congress.⁵³ Perhaps even more significantly, congressional staff rely on agency staff to inform them of how statutes will affect agency regulatory programs, and seem to accept agency input to prevent disruption of such programs, at least where that is not the purpose of the statute being drafted.⁵⁴ *Legislating in the Shadows* argues that the participation of agency lawyers in statutory drafting gives credence to the work of Peter Strauss and others who argue that agencies should have greater leeway than courts to deviate from textual interpretation, because the agency is more familiar with the underlying purposes of the statute.⁵⁵

Legislating in the Shadows identifies one interesting and potentially problematic aspect of the relationship between agency lawyers who are most involved in drafting legislation and those who work with agency staff to write regulations to implement agency-authorizing legislation. Those agency lawyers who draft regulations in which the agency often interprets its authorizing statute may not be as aware of the statutory purposes underlying the legislation as those who interact with the legislature.⁵⁶ This can undercut the

52. Christopher J. Walker, *Legislating in the Shadows*, 165 UNIV. OF PA. L. REV. (forthcoming 2017).

53. *Id.*

54. *Id.*

55. *Id.* (manuscript p.24) (commenting on the implications of Peter Strauss, *When the Judge Is Not the Primary Official with Responsibility to Read: Agency Interpretation and the Problem of Legislative History*, 66 CHI.-KENT L. REV. 321 (1990)).

56. See *supra* note 51.

argument for allowing agencies greater leeway than courts for non-textual interpretation, and ultimately for the *Chevron* standard of review. But, Walker downplays his concern on this score because his surveys of agency lawyers involved in legislative drafting indicate that they consult with non-legal agency staff in the process. The agency lawyers who draft legislation indicate that, after all, it is the staff members in the agency program offices that are their clients, and who actually have the knowledge about how various interpretations of the statute at issue will affect the agency program.

In his article in this symposium, Walker argues nonetheless that increasing the involvement of agency lawyers who draft regulations in the legislative process as well will allow coordination of the agency's regulatory goals with the purposes of its authorizing statutes.⁵⁷ Furthermore, based on his prior survey, Walker suggests that agencies would do well to structure their counsels' offices so that legislative and rulemaking counsel are not isolated from each other (and perhaps even overlap) to implement involvement of those responsible in drafting regulations in the legislative process.

At first blush, one might conjecture that Walker has identified an agency function that is, and should be, entirely independent of judicial review. There already is a check on the agency in the form of the legislative process that ensures that the agency does not seize the statutory drafting process to promote its own idiosyncratic values. One can be sure, at least for legislation enacted in the ordinary course of the legislative process,⁵⁸ that members of Congress and their staffs will allow the various interest groups that are affected to vet the statutory language.⁵⁹ If the agency slips language into a statute that upsets the constituents or groups that provide campaign funding to the senators and representatives, such language is unlikely to be enacted without awareness by the staff of some potential opposing legislator.

But I contend that even legislative drafting is affected by judicial review, albeit indirectly. Back before Judge Leventhal and his D.C. Circuit brethren developed the "hard look" test under the APA's arbitrary and capricious grounds for review,⁶⁰ the structure of agency staffs were simpler. In line with the process envisioned by

57. Walker, *supra* note 4, at 560–61.

58. See Abbe R. Gluck, Anne Joseph O'Connell & Rosa Po, *Unorthodox Lawmaking, Unorthodox Rulemaking*, 115 COLUM. L. REV. 1789 (2015) (noting that the process of enacting legislation often deviates from the paradigm of committee consideration and thorough vetting before a statutory provision is voted on).

59. See Mark Seidenfeld, *A Process Failure Theory of Statutory Interpretation*, 56 WM. & MARY L. REV. 467, 518 (2014).

60. Judge Leventhal developed the doctrine in his opinion in *Greater Boston Television v. FCC*, 444 F.2d 841, 851 (D.C. Cir. 1970). Since then, it is the dominant method by which courts review agency action challenged as arbitrary and capricious. See RICHARD J. PIERCE, JR., *ADMINISTRATIVE LAW TREATISE* (5th ed. 2010).

the APA when initially enacted, agency program offices took primary responsibility for developing regulations, and the role of agency staff outside the program offices was limited to technical advice on how to implement the program office vision.⁶¹ Starting in the 1970s, however, reviewing judges took greater prerogative to evaluate whether the agency had considered all factors that they found “relevant” to the adoption of the regulation under review.⁶² At the same time, agency staffs become more complex as they employed experts in disciplines other than those versed in the central concerns of their program offices. Thus, even agencies engaged in economic regulation hired biologists and medical experts to evaluate potential effects on health, environmentalists to evaluate effects on the environment, and statisticians to determine the effects of regulations on the likely usage of regulated products, while the newly created EPA hired economists and experts in policy analysis to consider the effects of environmental regulation on the economy and the markets directly subject to environmental regulations.⁶³

It is likely that both the complexity of agency rulemaking teams and the rise of judicial review reflected a reaction to public choice theory critiques of agency regulation. Both the politics of the early 1970s and the judicial view of agency regulatory processes reacted to the belief that focused special interest groups maintained an advantage in the regulatory process and skewed it from the public interest.⁶⁴ And the enactment of social legislation such as the

61. See Thomas O. McGarity, *The Internal Structure of EPA Rulemaking*, 54 L. & CONTEMP. PROBS. 57, 57–58 (1991) (noting that even though Congress recognized the interdisciplinary nature of the EPA regulatory mandate, “the first round of the technology-based standards under the Clean Water Act [] were largely products of single offices within the growing EPA bureaucracy, and they reflected very little input from professionals in the other programs”); see also Seidenfeld, *supra* note 11, at 528 (“When time or resources are scarce, or the need for input from the various offices within the agency is perceived as less important, agencies tend to use a more hierarchical model for formulating rules.”); CORNELIUS M. KERWIN, RULEMAKING: HOW GOVERNMENT AGENCIES WRITE LAW AND MAKE POLICY 58–60 (2d ed. 1999).

62. See *Citizens to Pres. Overton Park, Inc. v. Volpe*, 401 U.S. 402 (1971) (indicating that courts should ensure that agencies considered relevant factors when evaluating whether an agency action was arbitrary and capricious).

63. See Michael Herz, *Parallel Universes: NEPA Lessons for the New Property*, 93 COLUM. L. REV. 1668, 1711–12 (1993) (noting how NEPA’s requirement that agencies identify and consider environmental impacts forced agencies to include environmental experts in their decisionmaking process); cf. Jennifer Nou, *Intra-Agency Coordination*, 129 HARV L. REV. 421, 454–57 (2015) (claiming that the importance of economists in EPS rulemaking increased in response to President Reagan’s Executive Order 12,291, which required a cost-benefit analysis for major rules).

64. See Jerry L. Mashaw & David L. Harfst, *Inside the National Highway Traffic Safety Administration: Legal Determinants of Bureaucratic Organization and Performance*, 57 U. CHI. L. REV. 443, 445–49 (1990) (describing how the rise of the culture of legal constraint in the 1970s resulted in a shift of power in the rulemaking process from engineers to lawyers and economists); Richard Lazarus, *The Tragedy of Distrust in the Implementation of Federal Environmental Law*, 54 L. & CONTEMP. PROBS. 311, 317 (1991) (noting how fears of various

National Environmental Policy Act (NEPA) and Federal Trade Commission (FTC) consumer protection statutes were probably motivated by objections to special interest politics and agency capture.⁶⁵ More significantly for this Comment, it is quite likely that both political demands and those imposed by hard look review provided incentives for agencies to create staff offices with experts in various disciplines different from those that populated the agency program offices, and that responded to different constituencies than agency program offices.⁶⁶

If so, then hard look review plays a role in changing the dynamic between agencies and Congress. Traditionally, the institutional interactions underlying regulatory legislation were described as an iron triangle: representatives of a particular special interest group, agency staff, and relevant congressional committee members control the legislative process to provide for regulatory mechanisms that allow that interest group to “capture” the agency and thereby reap regulatory rents.⁶⁷ For many agency programs, the iron triangle description has been replaced by that of the “issue network” in which more fragmented interest groups offer particular expertise to agency staff members and congressional staff, and thereby influence regulation to obtain their desired outcome over a narrower realm of agency authority.⁶⁸ Essentially, in part because of judicial review as

capture scenarios “affected EPA’s organization within the executive branch, its internal structure, the structure and focus of the federal environmental laws under its jurisdiction, and the amount and character of judicial review of its actions”).

65. See Robert L. Rabin, *Federal Regulation in Historical Perspective*, 38 STAN. L. REV. 1189, 1298–99 (1986) (explaining how both NEPA and hard-look review developed from an expectation that agencies broaden their regulatory perspectives).

66. See Mark Seidenfeld, *Demystifying Deossification: Rethinking Recent Proposals to Modify Judicial Review of Notice and Comment Rulemaking*, 75 TEX. L. REV. 483, 509–10 (1997) (explaining that “[h]ard look review encourages agencies to obtain and coordinate input from various professional perspectives”).

67. See Reeve T. Bull, *Market Corrective Rulemaking: Drawing on EU Insights to Rationalize U.S. Regulation*, 67 ADMIN. L. REV. 629, 631–32 (2015) (describing the “iron triangle”); Michael A. Livermore, *Political Parties and Presidential Oversight*, 67 ALA. L. REV. 45, 101–02 (2015).

68. See Livermore, *supra* note 67, at 78. Additionally:

Some have questioned the current relevance of iron triangles, believing that much of American politics is characterized by ‘issue networks’—open, fragmented and complex interactions between government decision makers and interest groups. See Hugh Heclo, *Issue Networks and the Executive Establishment*, in THE NEW AMERICAN POLITICAL SYSTEM 87, 102 (Anthony King ed., 1978). More accurately, iron triangles and issue networks represent competing idealized images of the interaction of interest groups and decisionmakers within a policy subsystem. See James A. Thurber, *Dynamics of Policy Subsystems in American Politics*, in INTEREST GROUP POLITICS [319, 323 (Allan J. Cigler & Burdett A. Loomis eds., 3d ed. 1991)]; A. Grant Jordan, *Iron Triangles, Woolly Corporatism and Elastic Nets: Images of the Policy Process*, 1 J. PUB. POL’Y 95, 99–103 (1981).

Mark Seidenfeld, *Bending the Rules: Flexible Regulation and Constraints on Agency Discretion*, 51 ADMIN. L. REV. 429, 484 n.227 (1999).

it exists today, it is less likely that regulatory statutes promote agency capture writ large. Thus, Walker's proposal that agency regulatory staff be involved more generally with advising Congress about legislation at least arguably depends on indirect effects of substantive judicial review of agency policy.

V. CONCLUSION

This *Environmental Law Without Courts* Symposium has proven interesting because, in many respects, the articles discuss the role of courts in a world devoid of them. Perhaps that is a function of our focus as legal scholars: we can only talk about areas of great agency discretion, functionally if not formally free from judicial review, in comparison to the norm of judicial review that prevails in the U.S.'s system of administrative law. But, my Comment tries to make a point that goes further than merely noting legal scholars' propensity to discuss the role of courts. In my remarks above, I posit that judicial review casts a shadow over all that administrative agencies do, even while admitting, at least for the sake of argument, that such review does not apply to the actions discussed by several of the principal articles for the symposium.

The shadow of judicial review that I have identified involves three different effects of such review. First, even if agencies are free from meaningful review in choice of procedures beyond those specified by statute or required by the Constitution, this Comment demonstrated that substantive review over the ultimate agency action can have a significant impact on agency choice of procedure that can increase agency accountability for such a choice. Second, in those cases where courts have remanded an agency action while failing to provide any explicit instruction whether the agency should continue to pursue the action, the threat of further substantive review is one of the most important factors in the agency decision whether to do so. Finally, even for an action clearly not subject to any direct judicial review—in particular, agency participation in drafting statutes authorizing or defining the scope of agency action—judicial review has affected the administrative-legislative interaction by influencing the way that agencies staff their regulatory teams. My thesis is thus broad but easy to state: judicial review of agency action casts a long shadow over all that agencies do, and one cannot really talk in a meaningful way of environmental law (or any regulatory law) in the absence of courts.

**ANALYSIS OF INDIRECT AND CUMULATIVE
IMPACTS: DO THE *SIERRA CLUB V. FERC* OPINIONS
SIGNAL A LIMITATION OF NEPA’S REACH?**

VALERIE CHARTIER-HOGANCAMP*

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I. INTRODUCTION

Many environmental scholars have called the National Environmental Policy Act (NEPA) “revolutionary” in its framework.¹ In a forty-year review of NEPA, the Environmental Law Institute summarized the benefits realized by NEPA as follows: “NEPA recognizes that when the public and federal experts work together, better decisions are made[,] . . . public participation really matters[,] and] . . . the government [has] to explain itself.”² Notably, the Environmental Law Institute also recognized judicial review as a key factor in NEPA’s success.³ In fact, only three years after Congress enacted NEPA⁴, the United States Court of Appeals for the Fourth Circuit affirmed NEPA as “a value judgment by the Congress” that agencies must *consider* environmental impacts in the decision-making process.⁵ The court held that even “essential” federal infrastructure projects must comply with NEPA.⁶ Over the past four and a half decades, the judiciary has stood as a check in the process to ensure that federal agencies are properly implementing NEPA.⁷

1. ENVTL. LAW INST., NEPA SUCCESS STORIES: CELEBRATING 40 YEARS OF TRANSPARENCY AND OPEN GOVERNMENT 3 (2010) [hereinafter ELI, NEPA SUCCESS STORIES] (“[NEPA] . . . brought about . . . a revolutionary change in governmental decisionmaking that is important to this day.”); Harvey Black, *Imperfect Protection, NEPA at 35 Years*, 112 ENVTL. HEALTH PERSP. A292, A293 (2004) (“NEPA introduced what was at the time a fairly revolutionary process, whereby the whole government decision-making process was opened up in a way that it was never opened up before.”); Marc B. Mihaly, *Citizen Participation in the Making of Environmental Decisions: Evolving Obstacles and Potential Solutions Through Partnership With Experts and Agents*, 27 PACE ENVTL. L. REV. 151, 194 (“Both popular and scholarly literature recognize NEPA and its progeny as revolutionary in many respects.”).

2. ELI, NEPA SUCCESS STORIES, *supra* note 1, at 6–7.

3. *Id.* at 7.

4. NEPA was passed by Congress in 1969, and *Arlington Coalition on Transportation v. Volpe* was decided in 1972. National Environmental Policy Act, 42 U.S.C. §§ 4321–4347 (2012); *Arlington Coal. on Transp. v. Volpe*, 458 F.2d 1323 (4th Cir. 1972).

5. *Arlington Coal. on Transp.*, 458 F.2d at 1326. However clear the affirmation by the court in *Arlington Coalition*, it is important to note the distinction between NEPA, which is a process-driven environmental statute, and other environmental laws, such as the Endangered Species Act (ESA), which are results-driven and require substantive protection of the environment. See National Environmental Policy Act, 42 U.S.C. §§ 4331–4335; Endangered Species Act, 16 U.S.C. §§ 1531–1544. The only action-forcing language in NEPA is found at 42 U.S.C. § 4332(C) (requiring agencies to “include in every recommendation or report on proposals for legislation and other major Federal actions significantly affecting the quality of the human environment, a detailed statement by the responsible official”), which only requires an agency to consider the proposed environmental impacts of a project and not necessarily avoid or mitigate those impacts. 42 U.S.C. § 4332(C). In contrast, for example, the ESA requires an agency to “insure that any action . . . is not likely to jeopardize the continued existence of any endangered species or threatened species.” 16 U.S.C. § 1536. Therefore, as long as the statutory framework of NEPA remains only process-driven and does not require any substantive protection of the environment, it seems as though the environment will not “be afforded the highest of priorities” over other agency missions. *Tenn. Valley Auth. v. Hill*, 437 U.S. 153, 174 (1978). This distinction and the shortfall of NEPA in not requiring substantive environmental protection are discussed in Section IV, *infra*.

6. *Arlington Coal. on Transp.*, 458 F.2d at 1326.

7. ELI, NEPA SUCCESS STORIES, *supra* note 1, at 7.

Two recent decisions by the U.S. Court of Appeals for the District of Columbia Circuit (D.C. Circuit Court) appear to be implicitly asserting that NEPA may have reached its functional limitation for consideration of certain environmental impacts for federal projects.⁸ The pair of *Sierra Club v. Federal Energy Regulatory Commission* (FERC) cases decided on the same day in June 2016, seem to be a signal from the court that it is drawing a figurative line in the sand in terms of the environmental impacts (specifically in regards to indirect and cumulative effects) that must be considered by federal agencies in order to comply with the process requirements of NEPA.⁹ The *Sierra Club v. FERC* opinions potentially indicate a limitation on the environmental effects required to be considered by federal agencies under NEPA in three ways. First, the D.C. Circuit Court held that FERC did not have to analyze the indirect effect of potential greenhouse gas (GHG) emissions from increased domestic energy production (i.e., either more liquefied natural gas (LNG) or a substitute energy source such as coal) resulting from the increased LNG exports. Second, the court limited the scope of cumulative impacts analyses (most notably for GHG emissions) to those actions “within the statutory jurisdiction of the permitting agency and . . . proximately caused by the agency action.”¹⁰ Third, the court almost unconditionally deferred to FERC to define the area of assessment, which was geographically limited, for the analysis of its project’s cumulative effects, placing a limitation on the scope of environmental impacts that are required to be considered by the federal agency for each project.

This Note is organized as follows. Part II facilitates an understanding of the complex statutory framework underlying the *Sierra Club v. FERC* cases by providing an overview of the Natural Gas Act of 1938 and NEPA, and the regulations and guidance documents promulgated by multiple agencies under the authority of these two acts. Part III reviews the project at issue in each case, including the agency actions which were predecessors to the two cases in the D.C. Circuit Court. Part IV examines the three potentially significant holdings by the D.C. Circuit Court, discussed *supra*, and the potential implications of such in terms of the impact on future indirect and cumulative impacts analyses required to be conducted

8. It is yet to be seen, but this limitation may not be unlike the stance that the judiciary has taken throughout history as the use of powers have expanded over time, such as the modern revival of limitations on the Commerce Clause that began in 1995. See generally *United States v. Lopez*, 514 U.S. 549 (1995).

9. *Sierra Club v. Fed. Energy Reg. Comm’n*, 827 F.3d 36 (D.C. Cir. 2016); *Sierra Club v. Fed. Energy Reg. Comm’n*, 827 F.3d 59 (D.C. Cir. 2016).

10. David T. Buente, Jr. et al., *D.C. Circuit Upholds FERC’s Limited Impacts Analysis in NEPA Documents Addressing Greenhouse Gases*, SIDLEY AUSTIN LLP, NEWS & INSIGHTS (July 6, 2016), <http://www.sidley.com/news/2016-07-06-environmental-update>.

by federal agencies under NEPA. Finally, Part V looks at unanswered questions remaining in light of pending litigation against the U.S. Department of Energy (DOE) for the same projects at issue in these decisions.

II. STATUTORY FRAMEWORK

A. *Natural Gas Act of 1938*

The Natural Gas Act of 1938 was enacted by Congress “to create a comprehensive and effective regulatory scheme” over the natural gas industry in order to protect consumers from price exploitation by natural gas companies.¹¹ However, as the D.C. Circuit Court notes, the Act also created “a tangled web of regulatory processes.”¹²

The Natural Gas Act originally gave the Federal Power Commission “exclusive authority to approve or deny an application for the siting, construction, expansion, or operation of an LNG terminal.”¹³ In 1977, the DOE Organization Act abolished the Federal Power Commission; created DOE, and FERC as an independent agency component of DOE; and transferred the Section 3 powers of the Natural Gas Act to the Secretary of the newly created DOE.¹⁴ DOE has delegated approval authority for construction and operation of export facilities back to FERC but retained authority to approve imports or exports of natural gas.¹⁵ The Natural Gas Act also includes a clause specifying that natural gas exports from the U.S. must be in the public interest.¹⁶ This public interest determination is to be made by DOE and is dependent upon several factors, including the country where the natural gas will be exported and whether the U.S. has a free trade agreement with that country that includes provisions for trade of natural gas.¹⁷ Under this scheme, a natural gas exporter has to obtain authorization from FERC to construct and operate natural gas facilities and from DOE to actually export the natural gas.¹⁸

11. *Panhandle E. Pipe Line Co. v. Pub. Serv. Comm'n*, 332 U.S. 507, 520 (1947).

12. *Sierra Club*, 827 F.3d at 40.

13. 15 U.S.C. § 717b(e)(1) (2012).

14. 42 U.S.C. §§ 7131, 7134, 7151 (2012).

15. U.S. DEPT OF ENERGY, DELEGATION ORDER NO. 00-004.00A, §§ 1.21A, 3.3 (2006).

16. 15 U.S.C. § 717b(a) (2012).

17. *Id.* § 717b(c).

18. This delegation of authority to FERC has gone through several iterations with the issuance and rescission of multiple delegation orders by DOE since 1977. See *Delegations*, U.S. DEPT OF ENERGY, DIRECTIVES PROGRAM, OFFICE OF MGMT., <https://www.directives.doe.gov/delegations> (last visited Apr. 14, 2017). Ironically, DOE appears to have originally delegated responsibilities under the Natural Gas Act in this manner to resolve issues of regulatory consistency created by the DOE Organization Act. (“The division of regulatory responsibilities for imported [and exported] natural gas brought about by the

In addition to the regulatory approval process created by the Natural Gas Act, a NEPA review is also required for any "major Federal action[]" that will "significantly affect[] the quality of the human environment,"¹⁹ as discussed in Section II.B, *infra*, including any projects conducted under the authority of DOE or FERC that are considered major federal actions. However, the Natural Gas Act dictates which agencies are responsible for complying with NEPA for natural gas projects meeting this threshold. The Act designated the Federal Power Commission as the lead agency for all federal authorizations, including compliance with NEPA.²⁰ As discussed above, the DOE Organization Act transferred this authority to DOE.²¹ For LNG projects, FERC is designated as the lead agency, while DOE acts as a "cooperating agency."²² In complying with NEPA, "[a] cooperating agency may adopt without recirculating" the environmental document prepared by the lead agency.²³

B. National Environmental Policy Act

Congress passed NEPA in 1969 with the lofty purpose of striking a harmonious balance between humans and the natural environment.²⁴ NEPA directs that all federal agencies must use a "systematic" approach to ensure that environmental impacts are properly calculated into the decision-making process for any "major Federal actions [that have the potential to] significantly affect[] the quality of the human environment."²⁵ The Act requires that the responsible federal agency for a project prepare "a detailed statement" of proposed environmental effects,²⁶ including a description of project alternatives, a discussion of unavoidable adverse environment impacts, a comparison of short-term uses of resources with resulting long-term productivity, and an accounting of any "irreversible and irretrievable commitment[] of resources."²⁷ The

[DOE] Organization Act, and the assignment of these responsibilities to [agencies under the DOE, including] the FERC, presented inherent problems of coordination and regulatory consistency that did not exist when this responsibility was all exercised by the [Federal Power Commission]."). Natural Gas Imports: Policy Guidelines and Delegation, 49 Fed. Reg. 6684, 6689 (Feb. 22, 1984).

19. 42 U.S.C. § 4332(C) (2012).

20. *See Id.* § 7172.

21. *Id.* § 7151 (2012).

22. Cooperating Agencies, 40 C.F.R. § 1501.6. CEQ's implementing regulations for NEPA define a cooperating agency as "any other Federal agency which has jurisdiction by law, [or] . . . has special expertise with respect to any environmental issue." *Id.*

23. Adoption, 40 C.F.R. § 1506.3.

24. 42 U.S.C. § 4321.

25. *Id.* §§ 4332(A), (C).

26. For any federal action with the potential to meet the previously defined threshold of "significantly affecting the quality of the human environment." *Id.* § 4332(C).

27. *Id.* §§ 4332(C)(i)-(v).

broad language of NEPA left open to interpretation the methodology which would satisfy the statutory requirements. NEPA also created the Council on Environmental Quality (CEQ), an Executive agency, to fill in the gaps left by Congress.²⁸

1. Council on Environmental Quality Regulations and Guidance

As directed by Executive Order 11,514,²⁹ CEQ promulgated detailed regulations to guide agencies in complying with NEPA, commonly referred to as the “implementing regulations.”³⁰ The implementing regulations define the thresholds for the level of analysis and documentation required by an agency under NEPA (i.e., which projects require an Environmental Impact Statement (EIS) versus an Environmental Assessment (EA) and which projects could be categorically excluded from documentation requirements).³¹ The CEQ regulations direct that all NEPA environmental documents must include an analysis of direct, indirect, and cumulative effects and their significance.³² CEQ defines indirect effects as those “which are caused by the action and are later in time or farther removed in distance, but are still reasonably foreseeable.”³³ Examples of such indirect effects include actions which could induce population growth, changes in land use, and consequentially related effects on the natural environment.³⁴ CEQ defines cumulative impacts as the aggregate of incremental environmental impacts

28. *Id.* § 4371(c)(2).

29. Exec. Order No. 11,514, § (3)(h) (1970), *as amended by* Exec. Order No. 11,541, 35 Fed. Reg. 10,737 (1970) and Exec. Order 11,991, 42 Fed. Reg. 26,967 (1977).

30. *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004).

31. When to Prepare an Environmental Assessment 40 C.F.R. § 1501.3; Whether to Prepare an Environmental Impact Statement, 40 C.F.R. § 1501.4. A proposed agency action may be “categorically excluded” from the NEPA requirements of 42 U.S.C. § 4332(C) when the proposed action is not anticipated to “have a significant effect” on the environment. Categorical Exclusion, 40 C.F.R. § 1508.4; *see also National Environmental Policy Act Review Process*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/nepa/national-environmental-policy-act-review-process> (last visited Apr. 14, 2017). If an agency determines that a proposed action does not qualify for a categorical exclusion, then the agency may prepare an EA, which is designed to aid the agency in determining “whether or not the proposed action “has the potential to cause significant environmental effects,” and thus requires preparation of an EIS. *Id.*; *see also* Environmental Assessment, 40 C.F.R. § 1508.9. An EIS is required when an agency determines during the scoping for a project that the action has the potential to significantly affect the quality of the human environment, or when an agency has prepared an EA and then determined that a project has the potential to significantly affect the quality of the human environment. *National Environmental Policy Act Review Process*, U.S. ENVTL. PROT. AGENCY, <https://www.epa.gov/nepa/national-environmental-policy-act-review-process> (last visited Apr. 14, 2017). As EPA appropriately notes, “[t]he regulatory requirements for an EIS are more detailed and rigorous than the requirements for an EA.” *Id.*

32. Environmental Consequences, 40 C.F.R. § 1502.16(a)–(b).

33. Effects, 40 C.F.R. § 1508.8(b).

34. *Id.*

resulting from the project in question and “past, present, and reasonably foreseeable future actions.”³⁵ For the analysis of cumulative impacts, actions must be considered from all federal and non-federal entities, “regardless of what agency . . . or person undertakes such other actions.”³⁶ CEQ regulations warn that minor actions taken over time collectively may result in a significant impact.³⁷

On August 1, 2016, CEQ released a memorandum detailing its “Final Guidance for Federal Departments and Agencies on Consideration of [GHG] Emissions and the Effects of Climate Change in [NEPA] Reviews.”³⁸ By defining climate change as “a fundamental environmental issue, [whose] effects fall squarely within NEPA’s purview,” it would seem that CEQ is stating that accounting for GHG emissions in all NEPA documents is essential to complying with NEPA (and in keeping with NEPA’s purpose of protecting the environment).³⁹ However, the guidance only *recommends* that agencies quantify an action’s direct and indirect impact from GHG emissions.⁴⁰ Further, the guidance employs non-mandatory language (e.g., “recommend,” “may,” “should”)⁴¹ and specifically states that it “is not legally enforceable.”⁴² Because the final guidance is new at the time of this Note, it remains to be seen if and how agencies will translate this recommendation into practice in NEPA documentation and, perhaps more importantly, how courts will interpret the guidance and whether they will accord it any force of law.

2. Federal Energy Regulatory Commission Regulations and Guidance

Because FERC was created as an independent agency by the DOE Organization Act, the question arises as to whether CEQ’s NEPA regulations apply to FERC. CEQ answered this question in the affirmative, stating that the statutory requirements of NEPA apply to all federal agencies, and CEQ’s regulations provide the implementing framework for compliance with the statute.⁴³ In

35. *Id.* at § 1508.7.

36. *Id.*

37. *Id.*

38. COUNCIL ON ENVTL. QUALITY, MEMORANDUM FOR HEADS OF FEDERAL DEPARTMENTS AND AGENCIES, FINAL GUIDANCE FOR FEDERAL DEPARTMENTS AND AGENCIES ON CONSIDERATION OF GREENHOUSE GAS EMISSIONS AND THE EFFECTS OF CLIMATE CHANGE IN NATIONAL ENVIRONMENTAL POLICY ACT REVIEWS 1 (2016) [hereinafter CEQ MEMO].

39. *Id.* at 2.

40. *Id.*

41. *Id.* at 2, n.3.

42. *Id.*

43. Council on Env'tl. Quality's 40 Questions, 31a, 46 Fed. Reg. 18,026 (Mar. 16, 1981).

short, CEQ's NEPA implementing regulations do apply to independent agencies such as FERC.⁴⁴ In 1987, FERC provided its position on the question of whether it was bound as an independent agency to the CEQ's implementing regulations by issuing its own implementing regulations for NEPA and "voluntarily" agreeing to comply with CEQ's implementing regulations.⁴⁵ The final rule issued by FERC purports to comply with and supplement CEQ regulations.⁴⁶ However, in the Federal Register notice for the final rule, FERC notes that it does not need to address the question of whether CEQ's regulations are binding on FERC because its compliance is purely voluntary.⁴⁷ FERC then goes on to clearly state that CEQ's implementing regulations are not binding on it "to the extent they are inconsistent with [FERC's] statutory obligations."⁴⁸

FERC has also promulgated its own set of implementing regulations that guide specifically how FERC should implement NEPA.⁴⁹ These regulations specifically define what actions conducted under FERC's authority can be categorically excluded from NEPA as well as those actions that require an EA or EIS.⁵⁰ The regulations also specify the environmental reporting that the agency requires for projects that require submittal of an application under the Natural Gas Act.⁵¹ The regulations explain the requirements for documentation with open-ended language, stating that the amount of detail for the environmental documents "must be commensurate with the complexity of the proposal and its potential for environmental impact."⁵² The general requirements for the environmental documentation include an accounting of the indirect effects and cumulative effects from "existing or reasonably foreseeable projects."⁵³ FERC has also published a companion *Guidance Manual for Environmental Report Preparation for Applications Filed Under the Natural Gas Act*.⁵⁴ The purpose of the manual is to assist entities filing applications with FERC in complying with the NEPA process and providing appropriate environmental documentation.⁵⁵

44. *Id.*

45. Regulations Implementing the National Environmental Policy Act, 52 Fed. Reg. 47,897 (Dec. 17, 1987) (to be codified at 18 C.F.R. pts. 2, 157, 380) [hereinafter FERC Order 486].

46. *Id.*

47. *Id.*

48. *Id.*

49. Regulations Implementing the National Environmental Policy Act, 18 C.F.R. § 380 (2015).

50. *Id.* at §§ 380.4–6.

51. *Id.* at § 380.12.

52. *Id.* at § 380.12(a)(2).

53. *Id.* at § 380.12(b)(3).

54. FED. ENERGY REG. COMM'N, GUIDANCE MANUAL FOR ENVIRONMENTAL REPORT PREPARATION FOR APPLICATIONS FILED UNDER THE NATURAL GAS ACT (2015).

55. *Id.*

III. LITIGATION BACKGROUND

A. Freeport Project

The Freeport project consists of two separate projects—one located on Quintana Island near Freeport, Texas (referred to as the liquefaction project) and a second project located 2.5 miles north of Quintana Island (referred to as the phase II modification project)⁵⁶; because the projects are related, both were addressed in one NEPA document⁵⁷. The liquefaction project consists of a new liquefaction plant, pretreatment plant facilities, and a pipeline/utility line system occupying a permanent footprint of 269 acres.⁵⁸ The phase II modification project consists of modification to previously authorized but not yet constructed LNG facilities totaling approximately 15 acres⁵⁹; these facilities would support import and export capabilities.⁶⁰

1. Federal Energy Regulatory Commission Litigation History

FERC prepared an EIS for the Freeport project, which resulted in a Record of Decision (ROD) published in November 2014.⁶¹ In the Final EIS, FERC concluded that the projects would result in both short-term and long-term adverse environmental impacts but (with mitigation) would be in compliance with NEPA, the Endangered Species Act, the National Historic Preservation Act, the Clean Air Act, and the Coastal Zone Management Act.⁶² On these findings, FERC issued an order granting authorization for the Freeport project.⁶³ Sierra Club and Galveston Baykeeper filed a request for rehearing of FERC's order, which was denied by FERC.⁶⁴

56. FED. ENERGY REG. COMM'N, FREEPORT LNG LIQUEFACTION PROJECT PHASE II MODIFICATION PROJECT FINAL ENVIRONMENTAL IMPACT STATEMENT 2-1, 2-7 (2014) [hereinafter FREEPORT EIS].

57. *Id.* at 1-1 (“This final EIS analyzes the effects of these two interconnected projects.”).

58. *Id.* at 2-1, 2-3, 2-5, 2-9.

59. *Id.* at 2-7, 2-9.

60. *Id.* at 2-7.

61. Record of Decision and Floodplain Statement of Findings for the Freeport LNG Expansion, L.P. Export Application, 79 Fed. Reg. 69,101–104 (Nov. 20, 2014) (FERC, as “the federal agency responsible for evaluating applications [for] construct[ion] and operat[ion] of interstate natural gas facilities,” prepared the EIS as the lead agency for the project; DOE, EPA, the U.S. Department of Transportation, the U.S. Army Corps of Engineers, and the National Oceanic and Atmospheric Administration joined as cooperating agencies for the EIS).

62. FREEPORT EIS, *supra* note 56, at ES-10.

63. Freeport LNG Dev., L.P., 148 F.E.R.C. P61,076, 61476, 2014 FERC LEXIS 1191, *2, 2014 FERC LEXIS 1191 (F.E.R.C. 2014).

64. Freeport LNG Dev., L.P., 149 F.E.R.C. P61,119, 61769–70, 2014 FERC LEXIS 1817, *1, 2014 FERC LEXIS 1817 (F.E.R.C. 2014).

In response to FERC's denial, Sierra Club brought suit in D.C. Circuit Court, challenging the order by FERC granting authorization for the Freeport project under Section 3 of the Natural Gas Act.⁶⁵ Sierra Club argued that FERC failed to comply with NEPA in two respects—first, by failing to consider the indirect impacts resulting from an increase in domestic LNG production induced by the Freeport project, and second, by failing to analyze the cumulative impacts of the Freeport project along with other proposed LNG export projects nationwide.⁶⁶ The D.C. Circuit Court rejected Sierra Club's challenges to FERC's EIS, and specifically noted that FERC's NEPA review of the project was considered "separate and apart" from any environmental impacts analysis which might be required for DOE's "independent decision to authorize exports" at the Freeport terminal.⁶⁷

2. U.S. Department of Energy Litigation History

DOE independently reviewed and adopted FERC's Final EIS for the Freeport project and issued its own ROD.⁶⁸ DOE then granted final authorization for LNG exports associated with the Freeport project.⁶⁹ Sierra Club filed a request for rehearing of the order with DOE, which was denied because DOE found that Sierra Club had

65. Brief for Petitioners, *Sierra Club v. Fed. Energy Reg. Comm'n*, 2015 WL 1136642 (C.A.D.C.), 1.

66. *Sierra Club v. Fed. Energy Reg. Comm'n*, 827 F.3d 36, 42 (D.C. Cir. 2016). For the cumulative impacts analysis, Sierra Club argued that FERC must "analyze the cumulative environmental effects of [the Freeport project] with 'the many proposed export projects' across the country, including, 'at a minimum,' those already authorized and 'all other export projects to have received conditional authorization from' the [DOE]." *Id.* at 42.

67. *Sierra Club*, 827 F.3d at 51.

68. Environmental Impact Statements; Notice of Availability, 79 Fed. Reg. 61,303, 61,304 (Oct. 10, 2014) (providing notice that DOE adopted FERC's Final EIS for the Freeport project).

69. Final Opinion and Order Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas, to Non-Free Trade Agreement Nations, DOE/FE Order No. 3357-B. DOE had previously issued four conditional orders authorizing LNG exports from the Freeport terminal. *Freeport LNG Expansion L.P. and FLNG Liquefaction, LLC*, DOE/FE Order No. 3357, FE Docket No. 11-161-LNG, Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas to Non-Free Trade Agreement Nations (Nov. 15, 2013); *Freeport LNG Expansion L.P. et al.*, DOE/FE Order No. 3066, FE Docket No. 12-06-LNG, Order Granting Long-Term Authorization to Export Liquefied Natural Gas from Freeport LNG Terminal to Free Trade Nations (Feb. 10, 2012). On Feb. 7, 2014, DOE/FE issued Order No. 3066-A, which amended Order No. 3066 to add FLNG Liquefaction 2, LLC and FLNG Liquefaction 3, LLC as applicants and authorization holders; *Freeport LNG Expansion L.P. et al.*, DOE/FE Order No. 3282, FE Docket No. 10-161-LNG, Order Conditionally Granting Long-Term Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas to Non-Free Trade Agreement Nations (May 17, 2013).

not shown that the order was inconsistent with the public interest.⁷⁰ In response, Sierra Club brought suit against DOE in D.C. Circuit Court, arguing that DOE violated NEPA by failing to fully analyze the indirect and cumulative effects of proposed LNG export actions under its jurisdiction and acted arbitrarily or capriciously by concluding that the Freeport project was “consistent with the public interest.”⁷¹ The case against DOE is pending at the time of this Note.

B. Sabine Pass Project

The original Sabine Pass project consisted of construction and operation of liquefaction and export facilities covering approximately 191 acres at the existing Sabine Pass LNG terminal in Cameron Parish, Louisiana.⁷² After both FERC and DOE authorized the original project, an application was filed seeking to amend the authorization to allow for additional export capacity.⁷³

1. Federal Energy Regulatory Commission Litigation History

FERC prepared an EA for the original Sabine Pass Project, which was published in December 2011.⁷⁴ The EA concluded that the Sabine Pass project does not involve any significant environmental impacts requiring an EIS.⁷⁵ FERC then issued an order granting authorization for the project in April 2012.⁷⁶ In January 2014, FERC published an EA accounting for the impacts associated with the requested increase in production capacity.⁷⁷ FERC then issued an order granting authorization for the revised project in

70. Opinion and Order Denying Request for Rehearing of Orders Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Freeport LNG Terminal on Quintana Island, Texas, to Non-Free Trade Agreement Nations, DOE/FE Order No. 3357-C, 36. (Dec. 4, 2015).

71. *Sierra Club v. U.S. Dep't of Energy*, No. 15-1489 (filed July 5, 2016), petition for review at 1-2, 2016 WL 3612095 (C.A.D.C.).

72. FED. ENERGY REG. COMM'N, ENVIRONMENTAL ASSESSMENT FOR THE SABINE PASS LIQUEFACTION PROJECT 1-1 (2011) [hereinafter SABINE PASS EA].

73. *Id.*

74. *Id.* FERC was the lead agency and prepared the EA; the U.S. Army Corps of Engineers and the U.S. Department of Transportation participated as cooperating agencies in the preparation of the EA. *Id.* at 1-2.

75. *Id.* at 4-1.

76. Order Granting Section 3 Authorization, Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P., 139 FERC ¶ 61,039 (Apr. 16, 2012).

77. Environmental Assessment for the Sabine Pass Liquefaction Project, Sabine Pass Liquefaction, LLC, and Sabine Pass LNG, L.P., FERC Docket No. CP14-12-000 (Jan. 2014).

February 2014.⁷⁸ Sierra Club filed a request for rehearing with FERC, which was denied in September 2014.⁷⁹

In response to FERC's denial, Sierra Club brought suit in D.C. Circuit Court, challenging the order by FERC granting authorization for the amended Sabine Pass project under Section 3 of the Natural Gas Act.⁸⁰ Sierra Club argued two main points—increasing the authorized volume for LNG exports will (1) induce growth in domestic natural gas production and result in environmental impacts associated with the increased production activities, and (2) induce growth in coal extraction and burning and result in increased air pollution resulting from the coal burning.⁸¹ Sierra Club contended that the environmental impacts resulting from the induced growth in both the natural gas and coal industries constituted indirect effects, which should be analyzed by FERC for the Sabine Pass project along with similar cumulative effects from other projects.⁸² On the merits, the D.C. Circuit Court dismissed Sierra Club's petition in part and denied it in part.⁸³

2. U.S. Department of Energy Litigation History

DOE was a cooperating agency on the Sabine Pass EA.⁸⁴ The agency conducted an independent review of the EA and issued its own Finding of No Significant Impact (FONSI) in August 2012,⁸⁵ and granted an order authorizing LNG export from the terminal.⁸⁶

78. Order Amending Section 3 Authorization, Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P., 146 FERC ¶ 61,117 (Feb. 20, 2014).

79. Order Denying Rehearing, Sabine Pass Liquefaction, LLC and Sabine Pass LNG, L.P., 148 FERC ¶ 61,200 (Sept. 18, 2014) R. 15, JA 277.

80. Opening Brief of Petitioners at 1, *Sierra Club v. Fed. Energy Reg. Comm'n*, 2015 WL 2457447 (C.A.D.C.).

81. *Sierra Club v. Fed. Energy Reg. Comm'n*, 827 F.3d 59, 64 (D.C. Cir. 2016). Sierra Club premised its argument for induced growth in coal extraction and burning on three factors: "(1) increasing the volume of natural gas exports would more fully integrate the domestic natural gas market with the global market, where the price of natural gas is generally higher; (2) market integration would cause domestic natural gas prices to rise as the lower domestic price and the higher global price reach an equilibrium; (3) this hike in domestic gas prices would prompt U.S. energy consumers—in particular electric utilities—to switch from using natural gas to using coal, which is cheaper than natural gas but generates more air pollution." *Id.* at 64.

82. *Id.* at 64.

83. *Id.* at 70.

84. SABINE PASS EA, *supra* note 72, at 1-2.

85. U.S. DEP'T OF ENERGY, FINDING OF NO SIGNIFICANT IMPACT FOR SABINE PASS LIQUEFACTION, LLC REGARDING ORDER GRANTING LONG-TERM AUTHORIZATION TO EXPORT LIQUEFIED NATURAL GAS FROM SABINE PASS LNG TERMINAL TO NON-FREE TRADE NATIONS (2012) [hereinafter SABINE PASS FONSI].

86. Final Opinion and Order Granting Long-Term Authority to Export Liquefied Natural Gas from Sabine Pass LNG Terminal to Non-Free Trade Agreement Nations, DOE/FE Order No. 2961-A, FE Docket No. 10-111-LNG (Aug. 7, 2012).

DOE also prepared a separate *Addendum to Environmental Review Documents Concerning Exports of Natural Gas from the United States* in August 2014.⁸⁷ The Addendum was not specifically directed at the Sabine Pass project but was prepared in response to numerous comments for multiple projects received by the agency that expressed concern about induced impacts from increased production and export of natural gas.⁸⁸ In the Addendum, DOE acknowledged the “fundamental uncertainties” paramount in the prediction of induced impacts resulting from the granting of any specific authorization for export of natural gas.⁸⁹ DOE then assumed, without conceding, that the approval of export applications would result in a net increase in export volumes and associated induced impacts.⁹⁰ Finally, DOE reminded the reader (and the courts) that it prepared the Addendum only to provide the public with a more thorough understanding of potential induced environmental impacts and did so in excess of the statutory requirements of NEPA because the induced impacts discussed are not “reasonably foreseeable” within the meaning of the CEQ definition.⁹¹

DOE then commenced an over fifty-page hypothetical discussion of potential environmental impacts resulting from the induced growth of domestic energy production.⁹² Regarding water resources, DOE stated that impacts cannot be predicted on a regional scale and concludes that impacts could be significant given factors such as “improper techniques, irresponsible management, inadequately trained staff, or site-specific events outside of an operator’s control,” but would be minor with proper regulatory oversight, and administrative and engineering controls.⁹³ The Addendum also considered the potential for induced seismic events related to natural gas development projects.⁹⁴ Quoting a recent study from the National Research Council, DOE seemed to dismiss any concern about induced seismic activity because none of the recent induced seismic events resulting from natural gas projects has resulted in “loss of life or significant structural damage.”⁹⁵ In regards to air quality and GHG emissions, the potential environmental effects are more

87. U.S. DEPT OF ENERGY, ADDENDUM TO ENVIRONMENTAL REVIEW DOCUMENTS CONCERNING EXPORTS OF NATURAL GAS FROM THE UNITED STATES (2014) [hereinafter DOE ADDENDUM].

88. *Id.* at 3.

89. *Id.* at 1.

90. *Id.*

91. *Id.* at 2. To support this assertion, DOE specifically refers to the conclusion stating such in the Sabine Pass EA. *Id.*

92. *Id.* See *id.* at 10–68 for a discussion of impacts.

93. *Id.* at 19.

94. *Id.* at 55.

95. *Id.* (quoting NAT'L RES. COUNCIL, INDUCED SEISMICITY POTENTIAL IN ENERGY TECHNOLOGIES 26 (2013)).

significant. Again, DOE began its discussion by noting the difficulty of analysis because of the intermittent and dynamic nature of air emissions and the complicated process of translating GHG emissions into discrete measurements in the science of climate change.⁹⁶ DOE concluded that air emissions from LNG projects combined with present and future emissions from other sources may result in additional areas of non-attainment.⁹⁷ And perhaps more significantly, DOE concluded that cumulative air emissions may confound state efforts to bring existing non-attainment areas into attainment.⁹⁸ Finally, DOE concluded that these GHG emissions may contribute to climate change but that the ultimate result will depend upon the sources of production for replacement energy needs, and “there may be a net positive impact in terms of climate change.”⁹⁹

During the summer of 2014, DOE also published a report for another study that it conducted in reference to LNG exports and GHG emissions—*Life Cycle Greenhouse Gas Perspective on Exporting Liquefied Natural Gas from the United States*.¹⁰⁰ The underlying life cycle analysis was published as a companion document—*Life Cycle Analysis of Natural Gas Extraction and Power Generation*.¹⁰¹ The study was aimed at determining how LNG exports from the U.S. compare with regional LNG or regional coal as electric power generation sources in Europe and Asia in terms of life cycle GHG emissions.¹⁰² The study concluded¹⁰³ that, from a life cycle perspective, LNG exports from the U.S. used for electric power generation in Europe and Asia do not increase GHG emissions compared with regional power generation sources (i.e., regionally-sourced LNG or coal).¹⁰⁴

In June 2015, DOE issued its amended opinion and order for the export of additional LNG associated with the Sabine Pass project.¹⁰⁵ In its order, DOE independently reviewed and approved FERC’s EA for the increase in capacity associated with the project,

96. *Id.* at 32, 44.

97. *Id.* at 32.

98. *Id.*

99. *Id.* at 44.

100. U.S. DEPT OF ENERGY, NAT’L ENERGY TECH. LAB., LIFE CYCLE GREENHOUSE GAS PERSPECTIVE ON EXPORTING LIQUEFIED NATURAL GAS FROM THE UNITED STATES (2014) [hereinafter LIFE CYCLE PERSPECTIVE].

101. U.S. DEPT OF ENERGY, NAT’L ENERGY TECH. LAB., ANALYSIS OF NATURAL GAS EXTRACTION AND POWER GENERATION (2014) [hereinafter LIFE CYCLE ANALYSIS].

102. LIFE CYCLE PERSPECTIVE, *supra* note 100, at 1.

103. *Id.* The study made this conclusion while also acknowledging the “uncertainty in the underlying model data.” *Id.* at 18.

104. *Id.*

105. Final Opinion & Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal Located in Cameron Parish, Louisiana, to Non-Free Trade Agreement Nations, DOE/FE Order No. 3669, FE Docket Nos. 13-30-LNG, 13-42-LNG, 13-121-LNG (June 26, 2015).

including comments received on the DOE Addendum, and concluded that the requested export application was not inconsistent with the public interest and therefore granted the amended export application.¹⁰⁶ DOE also issued a FONSI for the additional export volume.¹⁰⁷ In July 2015, Sierra Club filed a timely request for rehearing of DOE's order¹⁰⁸; DOE granted Sierra Club's request.¹⁰⁹ DOE considered Sierra Club's arguments and issued an order denying its request for rehearing.¹¹⁰ Shortly thereafter, Sierra Club filed a Petition for Review of DOE's export authorization order for Sabine Pass with the D.C. Circuit Court.¹¹¹ The case against DOE for the Sabine Pass project is pending at the time of this Note.

IV. SIGNIFICANCE OF THE *SIERRA CLUB V. FERC* DECISIONS

A. Agency Deference

In the *Freeport* opinion, the court makes clear that its decision was not based upon any principle of deference but from the court's own understanding of binding precedent.¹¹² Specifically, the court does not have to defer to FERC's interpretation of NEPA because the statute is not entrusted to any particular federal agency but

106. *Id.*

107. SABINE PASS FONSI, *supra* note 85.

108. Opening Brief of Petitioner at 1, *Sierra Club v. U.S. Dep't of Energy*, 2016 WL 7012288 (C.A.D.C.).

109. Order Granting Request for Rehearing and Motion for Leave to Answer for the Purpose of Further Consideration, FE Docket Nos. 13-30-LNG, 13-42-LNG, 13-121-LNG (Aug. 24, 2015).

110. Opinion and Order Denying Request for Rehearing of Order Granting Long-Term, Multi-Contract Authorization to Export Liquefied Natural Gas by Vessel from the Sabine Pass LNG Terminal Located in Cameron and Calcasieu Parishes, Louisiana, to Non-Free Trade Agreement Nations. DOE/FE Order No. 3669-A. (May 26, 2016).

111. Petition for Review, *Sierra Club v. U.S. Dep't of Energy* 2016 WL 3612095 (C.A.D.C.) (July 5, 2016) (on Petition for Review of Orders of the Dep't of Energy 3357-B (Nov. 14, 2014) and 3357-C (Dec. 4, 2015)).

112. *Sierra Club v. Fed. Energy Reg. Comm'n*, 827 F.3d 36, 49 (D.C. Cir. 2016) ("Our decision here follows not from *de novo* factual findings or independent policy judgments, but from our interpretation of NEPA and binding Supreme Court precedent—neither of which trenches upon a 'determination specially entrusted to [FERC's] expertise.'").

is directed at all federal agencies.¹¹³ Therefore, *Chevron* deference does not apply to these cases.¹¹⁴

B. Indirect and Cumulative Effects

1. Indirect and Cumulative Greenhouse Gas Emissions

Shortly after the release of the two *Sierra Club v. FERC* opinions by the D.C. Circuit, one analyst noted that these “decisions may make it more difficult for CEQ to demand that future EISs and EAs prepared for proposed actions impacting climate change and GHG emissions should include upstream and downstream impacts as part of the discussion of indirect and cumulative impacts.”¹¹⁵ Moreover, the language in these decisions appears directly contrary to the goals of the final climate change guidance issued by CEQ just over a month after the D.C. Circuit Court issued these opinions.

In the *Freeport* decision, the court rejected Sierra Club’s attempted application of *Mid States Coalition for Progress v. Surface Transportation Board* in its argument that FERC had failed to

113. *Id.* (citing *Grand Canyon Trust v. Fed. Aviation Admin.*, 290 F.3d 339, 342 (D.C. Cir. 2002)). This precedent of courts declining to give deference to an agency interpretation of a statute of general applicability is not new. *See e.g.*, *Dubois v. U.S. Dep’t of Agric.*, 102 F.3d 1273, 1285 n.15 (1st Cir. 1996) (noting that *Chevron* does not apply because the court is “not reviewing an agency’s interpretation of the statute that it was directed to enforce.”); *Alaska Ctr. for the Env’t v. West*, 31 F. Supp. 2d 714, 721 (D. Alaska 1998) (“With respect to the challenges under [the Endangered Species Act (ESA)] and NEPA, *Chevron* deference is inapplicable, because administration of ESA and NEPA has not been entrusted to the [Army] Corps [of Engineers].”). However, the Supreme Court as well as lower courts have also explicitly recognized that NEPA is entrusted to CEQ, and as such, is entitled to appropriate deference (though some of these cases were decided prior to the 1984 landmark *Chevron* decision). *Marsh v. Or. Nat. Res. Council*, 490 U.S. 360, 372 (1989) (stating that the CEQ’s implementing regulations for NEPA “are entitled to substantial deference.”); *Andrus v. Sierra Club*, 442 U.S. 347, 358 (1979) (“CEQ’s interpretation of NEPA is entitled to substantial deference.”); *Warm Springs Dam Task Force v. Gribble*, 417 U.S. 1301, 1309–10 (1974) (stating that “determination [by CEQ regarding an EIS] is entitled to great weight.”); *Sierra Club v. U.S. Dep’t of Agric.*, 777 F. Supp. 2d 44, 68 (D.D.C. 2011) (“CEQ guidelines are entitled to substantial deference in interpreting the meaning of NEPA provisions, even when CEQ regulations are in conflict with an interpretation of NEPA adopted by one of the Federal agencies.”); *Crosby v. Young*, 512 F. Supp. 1363, 1386 (E.D. Mich. 1981) (“CEQ has been delegated the responsibility to implement the procedural requirements of NEPA. Its interpretation of NEPA is entitled to substantial deference.”).

114. *Id.* (“We are not obligated to defer to an agency’s interpretation of Supreme Court precedent under *Chevron* or any other principle.”) (citing *New York New York, LLC v. Nat’l Labor Relations Bd.*, 313 F.3d 585, 590 (D.C. Cir. 2002)). It is also important to note the currency of the *Chevron* deference debate as Congress is presently (as of the writing of this Note) considering House Resolution 5, the “Regulatory Accountability Act of 2017.” H.R. Res. 5, 115th Cong. (2017). Title II (“Separation of Powers Restoration Act”) of the Regulatory Accountability Act would overturn *Chevron* by “modif[y]ing” the scope of judicial review of agency actions to authorize courts reviewing agency actions to decide *de novo* (without giving deference to the agency’s interpretation) all relevant questions of law.” CONG. RES. SERVICE, H.R. 76 – 115th Congress (2017–2018), <https://www.congress.gov/bill/115th-congress/house-bill/76> (last visited Mar. 24, 2017) (“Summary” section).

115. Buente Jr. et al., *supra* note 10.

include an indirect effects analysis of potential air quality impacts (i.e., GHG emissions) from increased domestic energy production resulting from the increased LNG export capacity proposed as part of both projects. Instead, the court invoked the “reasonably close causal relationship” doctrine established by the Supreme Court in *Department of Transportation v. Public Citizen*.¹¹⁶ While this may seem like a typical case of *stare decisis*, it is yet notable for the way the court expressly rejected Sierra Club’s attempted application of *Mid States*.

In *Mid States*, petitioners successfully argued that “increased availability of coal will ‘drive’ the construction of additional power plants,” an indirect effect that is required to be analyzed under NEPA.¹¹⁷ The Eighth Circuit invoked the familiar “hard look” requirement for NEPA compliance.¹¹⁸ The court held that “it is reasonably foreseeable—indeed, it is almost certainly true—that the proposed project will increase the long-term demand for coal and any adverse effects that result from burning coal.”¹¹⁹ In requiring the Surface Transportation Board to analyze these indirect effects of potential air quality impacts resulting from increased coal usage, the court based its decision on the fact that the Board had itself identified such air quality impacts as potential impacts yet failed to analyze them.¹²⁰

In *Public Citizen*, the court employed an analysis similar to the “familiar doctrine of proximate cause from tort law,” stating that “a ‘but for’ causal relationship is insufficient to make an agency responsible for [an indirect effect] under NEPA.”¹²¹ Further, the court stated that NEPA requires “a reasonably close causal relationship” between the cause and resulting environmental impact.¹²²

In the *Freeport* opinion, the court leaned on the reasoning from *Public Citizen* and held that Sierra Club had not identified any reasonably foreseeable “specific and causally linear” indirect effects that could be considered by FERC absent the intervening action by DOE of issuing a license for LNG export.¹²³ The court reasoned that DOE’s decision whether to grant an export license acts as a break in the proximate cause analysis and “absolves” FERC from responsibility for analyzing these indirect effects.¹²⁴ In turn, the conclusion

116. *Sierra Club*, 827 F.3d at 48.

117. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

118. *Id.* at 533.

119. *Id.* at 549.

120. *Id.*

121. *Dep’t of Transp. v. Pub. Citizen*, 541 U.S. 752, 767 (2004).

122. *Id.*

123. *Sierra Club v. Fed. Energy Reg. Comm’n*, 827 F.3d 36, 48 (D.C. Cir. 2016).

124. *Id.* at 47–48.

of the court would extend to indirect effects questions in similar projects, meaning that these indirect impacts (and those from other projects in similar circumstances) would also not have to be considered as cumulative impacts.

Setting the *Freeport* opinion side by side with the decision of the Eighth Circuit in *Mid States* would seem to signal that it serves an agency well to simply not identify potential indirect effects in the environmental document and instead push the responsibility down the road with the hope that a full analysis will never be required. Not only did the court figuratively let FERC off the hook for the requested indirect effect analysis for the time being, but it also made no indication of whether or not such an analysis would be required by DOE.¹²⁵

Another wrinkle in the court's decision in the *Sierra Club v. FERC* cases is the potential inconsistency of what is being required of FERC for similar projects in regards to taking the requisite "hard look" at indirect downstream GHG emissions. FERC did not analyze the environmental impacts of indirect air emissions from either the Freeport or Sabine Pass projects, an approach which the court has now endorsed. However, at least one observer has noted that FERC did analyze just such indirect emissions in an EIS prepared for the Mountain Valley pipeline¹²⁶; the Draft EIS was released in September 2016, *after* the *FERC v. Sierra Club* decisions came down from the D.C. Circuit Court.¹²⁷ However, the Draft EIS itself still asserts that induced production effects are not reasonably foreseeable.¹²⁸

The obvious outstanding question is whether the court will require an indirect effects analysis of these induced impacts to be conducted by DOE; and if so, will the court consider the fact that

125. *Id.* at 45–46 ("We also express no opinion on whether (i) [FERC's] environmental analysis would have been adequate to satisfy [DOE's] own independent NEPA obligation in authorizing Freeport to export natural gas; or (ii) [FERC's] construction authorizations and [DOE's] export authorizations qualified as "connected actions" for purposes of NEPA review, *see* 40 C.F.R. § 1508.25(a)(1). As the Associations acknowledged at oral argument, Tr. of Oral Arg. at 20–21 (Nov. 13, 2015), objections concerning the environmental consequences stemming from the actual export of natural gas from the Freeport terminal, including increased emissions and induced production, are raised in their parallel challenge to [DOE's] order authorizing Freeport to export natural gas to non-free trade countries. Because the Natural Gas Act places export decisions squarely and exclusively within the [DOE's] wheelhouse, any such challenges to the environmental analysis of the export activities themselves must be raised in a petition for review from [DOE's] decision to authorize exports.").

126. Hannah Northey, *EPA to FERC: 'We really need to talk'*, GREENWIRE, (Oct. 24, 2016), <http://www.eenews.net/greenwire/stories/1060044726>.

127. Mountain Valley Pipeline LLC, Equitrans LP; Notice of Availability of the Draft Environmental Impact Statement for the Proposed Mountain Valley Project and Equitrans Expansion Project, 81 Fed. Reg. 66,268–02 (Sept. 27, 2016).

128. FED. ENERGY REG. COMM'N, FERC/DEIS-D0272, MOUNTAIN VALLEY PROJECT AND EQUITRANS EXPANSION PROJECT DRAFT ENVIRONMENTAL IMPACT STATEMENT 1-22, 1-23 (2016).

DOE specifically identified the impacts in the Addendum that it prepared,¹²⁹ similar to the application the court employed in *Mid States*?¹³⁰ It may be key to DOE (and the court) that the agency did not concede that the induced environmental impacts would actually come to fruition but only identified the potential hypothetical impacts as a sort of service to inform the public.¹³¹

2. Cumulative Impacts Area of Effect

Federal courts have consistently held that an agency cannot evaluate the environmental impacts of a project under NEPA “in a vacuum.”¹³² Rather, the D.C. Circuit Court stated that a “meaningful” analysis of cumulative impacts under NEPA must include five components: (1) area of effect for a proposed action, (2) impacts within that area expected from the proposed action, (3) other “past, present, and reasonably foreseeable future actions”¹³³ within the identified area of effect, (4) impacts of those actions within the same area of effect, and (5) the expected aggregate impact of the incremental impacts of the proposed action and other identified actions when considered together.¹³⁴

A federal district court in Michigan held that even impacts that result from a major federal action outside the U.S.’s national boundary must be considered in a NEPA analysis; the area of effect cannot simply be drawn at the geographic boundary.¹³⁵ To hold in the contrary would permit the federal government to endorse projects (i.e., by funding them) that could cause significant environmental damage “without any accountability for those actions.”¹³⁶ However, the D.C. Circuit supported just such a boundary in the *Freeport* decision. FERC simply defined the area of analysis for cumulative impacts in the Freeport project by the county boundary in which the project is located because “the predominance of environmental

129. DOE ADDENDUM, *supra* note 87.

130. *Mid States Coal. for Progress v. Surface Transp. Bd.*, 345 F.3d 520, 549 (8th Cir. 2003).

131. DOE ADDENDUM, *supra* note 87, at 2. To support this assertion, DOE specifically refers to the conclusion stating such in the Sabine Pass EA. *Id.*

132. *Grand Canyon Tr. v. Fed. Aviation Admin.*, 290 F.3d 339, 346 (D.C. Cir. 2002); *see also Taxpayers of Mich. Against Casinos v. Norton*, 433 F.3d 852, 864 (D.C. Cir. 2006) (“[T]he agency ‘cannot treat the identified environmental concern in a vacuum.’”); *Fund for Animals v. Hall*, 448 F. Supp. 2d 127, 133 (D.D.C. 2006) (“[T]he agency’s EA must give a realistic evaluation of the total impacts and cannot isolate a proposed project, viewing it in a vacuum.”); *Dine Citizens Against Ruining Our Env’t v. Klein*, 747 F. Supp. 2d 1234, 1257 (D. Colo. 2010) (“[A]n EA is not conducted in a vacuum.”).

133. Cumulative Impact, 40 C.F.R. § 1508.7 (2016).

134. *Grand Canyon Tr.*, 290 F.3d at 345.

135. *Hirt v. Richardson*, 127 F. Supp. 2d 833, 845 (W.D. Mich. 1999).

136. *Id.*

impacts occur there.”¹³⁷ While Sierra Club argued that this area was necessarily too narrow to consider all appropriate cumulative impacts from the project, the court held that “[a] NEPA cumulative-impact analysis need only consider the ‘effect of the current project along with any other past, present or likely future actions *in the same geographic area*’ as the project under review.”¹³⁸ Citing *Kleppe v. Sierra Club*,¹³⁹ the court defers to the agency and states that determination of the area of analysis for cumulative impacts “requires a high level of technical expertise,” and thus “is a task assigned to the special competency of [FERC].”¹⁴⁰ It remains to be seen what type of “technical expertise” is required to simply elect the county lines as a boundary for environmental analysis.

An arguably better approach than selecting an arbitrary line such as a county boundary would be a natural resource-based approach such as that employed in *Kleppe*, which considers boundaries such as “basin boundaries, drainage areas, areas of common reclamation problems, . . . and other relevant factors.”¹⁴¹ Sierra Club contended just this in their argument, but they may have reached too far in requesting a nationwide cumulative effects analysis.¹⁴² The D.C. Circuit Court has previously held that an agency may consider “practical considerations” in its determination of the geographic boundary for its cumulative effects analysis.¹⁴³ In fact, the court cited *Kleppe* in noting practical considerations that may necessitate restriction of the boundaries for a cumulative impact analysis.¹⁴⁴ While the court does not disclose a nationwide boundary for a cumulative effects analysis in some NEPA projects,¹⁴⁵ it does cabin its holding in the practical considerations restriction from *Kleppe*.¹⁴⁶ Because a nationwide analysis is likely not practical for the projects at issue in these two cases, Sierra Club may have had more success with their argument if they had proposed a cumulative effects boundary defined by one or more of the factors listed by the Supreme Court in *Kleppe*.¹⁴⁷

137. FREEPOR EIS, *supra* note 56, at 4-240.

138. *Sierra Club v. Fed. Energy Reg. Comm’n*, 827 F.3d 36, 50 (D.C. Cir. 2016) (citing *Taxpayers of Mich. Against Casinos v. Norton*, 433 F.3d 852, 864) (emphasis added); see also *Grand Canyon Tr.*, 290 F.3d at 345 (NEPA “cumulative impacts” applies to “impacts in the same area”).

139. *Kleppe v. Sierra Club*, 427 U.S. 390, 412, 414 (1976) (emphasis added).

140. *Sierra Club*, 827 F.3d at 49.

141. *Kleppe*, 427 U.S. at 411.

142. *Sierra Club*, 827 F.3d at 50.

143. *Theodore Roosevelt Conservation P’ship v. Salazar*, 744 F. Supp. 2d 151, 163 (D.D.C. 2010); see also *Kleppe*, 427 U.S. at 414.

144. *Sierra Club*, 827 F.3d at 50 (citing *Kleppe*, 427 U.S. at 414).

145. *Id.* (citing *Grand Canyon Tr. v. Fed. Aviation Admin.*, 290 F.3d 339, 345 (D.C. Cir. 2002)).

146. *Sierra Club*, 827 F.3d at 50 (citing *Kleppe*, 427 U.S. at 414).

147. *Kleppe*, 427 U.S. at 411.

V. UNANSWERED QUESTIONS

A. Pending Litigation Against the U.S. Department of Energy

As noted in Section IV, *supra*, the D.C. Circuit Court has pushed several questions regarding NEPA compliance for these projects down the road to be determined in pending litigation against DOE; therefore, “certain contours of the NEPA analysis remain uncertain for LNG projects.”¹⁴⁸ These questions will hopefully be answered in the opinions for the DOE cases. The D.C. Circuit Court will likely be forced to address whether DOE will be required to conduct additional indirect and cumulative effects analyses for these projects; but the court may choose to leave open-ended the methodology required for these analyses.

If the court rules wholly in favor of DOE—that is, not requiring DOE to conduct a NEPA analysis for indirect impacts resulting from increased LNG exports (e.g., increased LNG production, increased coal usage)—then essentially DOE is off the hook. With such a holding, DOE would be done with its analysis, and the projects would move forward.

However, if the court holds for Sierra Club and requires DOE to undertake a NEPA analysis of indirect effects, the ramifications of the decision could be far-reaching. At the extreme end of the consequences, DOE would have to look at the potential impacts of indirect effects such as increased LNG production, and potentially increased coal usage as an alternative fuel source for electricity production since the domestic availability of LNG may decrease with increased LNG exports.

But is there a compromise? Maybe. The court could require DOE to undertake a NEPA indirect effects analysis but leave the methodology and limits of that analysis entirely to agency discretion. In this case, we could likely expect to see a lot of agency deference in terms of the methodology and results, and it could be that DOE has already done enough with the documentation provided in the DOE Addendum, Life Cycle Perspective, and Life Cycle Analysis documents.¹⁴⁹

148. Mark R. Haskell, *D.C. Circuit Upholds FERC's NEPA Analysis in Sabine Pass and Freeport LNG Project*, NAT'L L. REV. (June 30, 2016), <http://www.natlawreview.com/article/dc-circuit-upholds-ferc-s-nepa-analysis-sabine-pass-and-freeport-lng-projects>.

149. DOE ADDENDUM, *supra* note 87; LIFE CYCLE PERSPECTIVE, *supra* note 100; LIFE CYCLE ANALYSIS, *supra* note 101.

B. Meeting with the U.S. Environmental Protection Agency

FERC may be facing pressure from outside the courts to be more diligent in its efforts to consider indirect and cumulative effects resulting from natural gas projects, especially in the realm of climate change considerations.¹⁵⁰ The U.S. Environmental Protection Agency (EPA) has requested “a headquarters-level” conversation with FERC to encourage “more comprehensive climate reviews” of its natural gas pipeline projects.¹⁵¹ EPA seems to believe that FERC is not doing enough in its NEPA analyses to consider downstream GHG emissions resulting from actions similar to the Freeport and Sabine Pass projects.¹⁵² Additionally, EPA has noted FERC’s inconsistencies between projects with its NEPA indirect effect analyses for GHG emissions; FERC has quantified these impacts for some projects and not for others.¹⁵³ As of the writing of this Note, FERC has not responded to EPA’s request for this policy discussion.¹⁵⁴

VI. CONCLUSION¹⁵⁵

The Supreme Court has stated that “[t]he role of the courts is simply to ensure that the agency has adequately considered and disclosed the environmental impact of its actions.”¹⁵⁶ The fundamental question then is whether FERC¹⁵⁷ has met its statutory and

150. When NEPA was enacted, some observers believed that external pressure from environmental agencies (who have the expertise to best understand the potential environmental impacts of a proposed project) would force mission-oriented agencies to more seriously consider the environmental consequences of their actions. ROBERT L. GLICKSMAN ET AL., ENVIRONMENTAL PROTECTION: LAW AND POLICY 265 (Erwin Chemerinsky et al. eds., 7th ed. 2015).

151. Northey, *supra* note 126.

152. *Id.* (“The meeting request was spurred by EPA . . . accusing FERC of ignoring its request for a deeper look at downstream greenhouse gas emissions from [a] natural gas pipeline [project].”).

153. *Id.* (“FERC, for example, didn’t quantify downstream indirect greenhouse gas emissions from the Leach Xpress pipeline but did analyze those emissions in an [EIS] for the Mountain Valley pipeline, which would stretch 300 miles from northwestern West Virginia to southern Virginia.”).

154. *Id.*

155. The regulatory climate is currently in flux with respect to issues addressed in this Note, including the standard of judicial review of agency action. *See H.R. Res. 5, 115th Cong. § 202 (2017) (Title II, “Separation of Powers Restoration Act,” of the Regulatory Accountability Act would overturn Chevron by “modif[y]ing” the scope of judicial review of agency actions to authorize courts reviewing agency actions to decide de novo (without giving deference to the agency’s interpretation) all relevant questions of law.*”). More generally with respect to the evolving landscape, *see, e.g.*, Executive Order 13,771, “Reducing Regulation and Controlling Regulatory Costs” (requiring “that for every one new regulation issued, at least two prior regulations be identified for elimination.”) Exec. Order 13,771, *unpublished*. It is yet to be seen how the federal policy developments of early 2017 will impact NEPA and the analysis offered in this Note.

156. *Balt. Gas & Elec. Co. v. Nat. Res. Def. Council*, 462 U.S. 87, 97–98 (1983).

157. And DOE in the pending cases.

regulatory burden for compliance with NEPA by adequately considering and disclosing the environmental impacts from the Freeport and Sabine Pass projects and whether the D.C. Circuit Court has fulfilled its role of ensuring that the agency has done its job to comply. In short, the answer is yes to both parts of the question.

NEPA only requires “a detailed statement” of proposed environmental impacts resulting from major federal actions.¹⁵⁸ FERC is an independent agency that has “voluntarily” agreed to comply with CEQ’s implementing regulations.¹⁵⁹ Any additional guidance issued by CEQ is on even more tenuous grounds, such as the new GHG and climate change guidance, which has no legally binding effect on FERC.¹⁶⁰ FERC is also the one that gets to draw the line for crucial questions such as the area of analysis boundary for cumulative impacts, which it has defined narrowly.¹⁶¹ Considering all of these factors, FERC and the court both appear to have satisfied their obligations under NEPA.

A secondary question for another day then becomes whether the statutory framework of NEPA and the CEQ implementing regulations require enough from FERC and DOE in considering and disclosing the environmental impacts of these projects. In my opinion, probably not. NEPA’s purpose may be to protect the environment for future generations,¹⁶² but that purpose is clearly in contradiction with FERC’s mission, which is to assist in providing consumers with “reliable, efficient and sustainable energy services at a reasonable cost through appropriate regulatory and market means.”¹⁶³ It may be in the clashing of these values that the problem lies.¹⁶⁴ The D.C. Circuit Court may begin to answer this question with its ruling on the pending DOE cases. Or maybe the U.S. EPA will begin to force FERC’s hand towards more diligent NEPA

158. For any federal action with the potential to meet the previously defined threshold of “significantly affecting the quality of the human environment.” 42 U.S.C. § 4332(C) (2012).

159. FERC Order 486, *supra* note 45.

160. CEQ MEMO, *supra* note 38, at 2 n.3.

161. *Sierra Club v. Fed. Energy Reg. Comm’n*, 827 F.3d 36, 49–50 (D.C. Cir. 2016).

162. 42 U.S.C. § 4321 states:

The purposes of [NEPA] are: To declare a national policy which will encourage productive and enjoyable harmony between man and his environment; to promote efforts which will prevent or eliminate damage to the environment and biosphere and stimulate the health and welfare of man; to enrich the understanding of the ecological systems and natural resources important to the Nation; and to establish a Council on Environmental Quality.

42 U.S.C. § 4321 (2012).

163. *About FERC*, FED. ENERGY REG. COMM’N, <https://www.ferc.gov/about/about.asp> (last visited Apr. 14, 2017).

164. Some observers believe that the original purpose of NEPA was to reign in the “mission-oriented agencies that carr[ie]d out their mandates at the expense of the environment.” GLICKSMAN ET AL., *supra* note 150, at 261.

compliance and voluntary¹⁶⁵ substantive environmental protection in its decision-making processes.

Alternatively, it may be that the answer to accounting for and minimizing indirect and cumulative environmental effects from projects such as these does not lie with NEPA. A project-level NEPA analysis may very well not be the proper regulatory mechanism to address regional and national issues of indirect and cumulative environmental impacts, such as GHG emissions. Perhaps the recent fluctuations in the regulatory landscape¹⁶⁶ will reveal an alternative mechanism for dealing with these questions.

165. Any substantive environmental protections provided by agencies would have to occur voluntarily at the hands of agencies because, as discussed in note 5, *supra*, NEPA only requires agencies to comply with process and does not require substantive environmental protection. 42 U.S.C. § 4332(C) (2012).

166. Discussed in note 155, *supra*.

ABSTRACTS

Carol Rose, *Commons, Cognition, and Climate Change*, 32 J. LAND USE & ENVTL. L. 297 (2017).

Coping with climate disruption is often characterized as a commons or collective action problem. In this essay I argue that certain major cognitive blockages are inherent in the structure of commons or collective problems—especially such large scale collective problems as climate disruption. The essay identifies those baked-in cognitive impediments as distrust, ignorance, and insouciance, and it describes how they emerge from the structure of collective action. The essay then discusses some potential antidotes to collective action cognitive blockages, including motivated belief, commitment, and what I call interestingness and fun. Since these antidotes would appear to be rather weak in the face of a collective action problem so vast as climate disruption, the essay turns to types of action that potentially reduce the collective character of climate issues; here I discuss adaptation, geoengineering, and market measures. The essay concludes that market measures would appear to be the most promising, insofar as they can turn climate-related collective action into decision-making based on small-group or individual interest.

Robert V. Percival, *The “Greening” of the Global Judiciary*, 32 J. LAND USE & ENVTL. L. 333 (2017).

Throughout history the judiciary has played a key role in the development and implementation of principles of environmental law. Courageous, far-sighted judges have intervened at critical stages in history to articulate and apply key principles of law, particularly when other branches of government ignored festering environmental problems. Judges around the world are now becoming more sophisticated in handling environmental matters and countries are establishing and expanding specialized environmental courts.

This article begins by describing the history of judicial involvement in environmental cases, starting with the common law the U.S. inherited from Britain and continuing through the rapid growth of environmental legislation in the final decades of the twentieth century. It then discusses the more recent growth of global environmental law and the role courts are playing in this development. The article reviews the growth of specialized

environmental courts, how the judiciary is responding to climate change and efforts to increase the capacity of the global judiciary to handle environmental cases. The article concludes by examining the emergence of widely held principles of environmental law.

Robin Kundis Craig & Catherine Danley, *Federal Fisheries Management: A Quantitative Assessment of Federal Fisheries Litigation Since 1976*, 32 J. LAND USE & ENVTL. L. 381 (2017).

When Congress enacted the Magnuson-Stevens Fishery Conservation and Management Act in 1976, it intended the Act to operate largely without the courts. Indeed, since the statute's enactment, the National Oceanic and Atmospheric Administration (NOAA) and the regional Fisheries Management Councils have published over 1,700 regulatory actions in the Federal Register, but cases challenging fisheries management have been relatively limited.

Given how much fisheries management "flies under the courts' radar," so to speak, it is worth asking what kinds of cases do end up in the courts. This article presents an initial quantitative assessment of federal fisheries litigation since 1976 to begin to assess the role of the courts in federal fisheries management. It concludes first that the 1996 and 2006 amendments to the Magnuson-Stevens Act, each of which added enforceable ecological requirements, each increased the amount of environmentally-minded litigation brought under that statute. Nevertheless, contrary to many perceptions, fishermen always have been the Act's primary litigants, arguably confounding Congress's original intent for fisheries management.

Erin Ryan, *Fisheries Without Courts: How Fishery Management Reveals Our Dynamic Separation of Powers*, 32 J. LAND USE & ENVTL. L. 431 (2017).

This essay adds a perspective from fisheries governance to the broader inquiry into the respective roles of judicial, legislative, and executive decision-making in modern environmental law. It comments on Robin Craig and Catherine Danley's quantitative assessment of litigation under the federal Fishery Conservation and Management Act (FCMA), and considers three key questions raised by their research: (1) Why is the judicial role in fisheries management small in comparison to the executive role? (2) When litigation is brought, why are fishery management plans the most frequent targets of litigation? And finally, (3) why is it that even

with so many fisheries in decline, members of the fishing industry bring litigation more often than environmentalists?

The essay begins with a quick foray into fisheries science and economics to establish the fundamental paradox of fisheries management, in which managers strive to set a sustainable yield of extraction that accounts for the various ways in which extraction can itself alter the resource, requiring successively recursive rounds of regulatory adjustment. This analysis indicates why fisheries management is ideally suited to the features of administrative governance, in contrast to the comparative advantages of legislative or judicial oversight, because bureaucratic experts can usually respond more rapidly and adaptively to a fluid stream of highly technical data.

Nevertheless, when FCMA litigation does arise, fishery management plans become the most frequent targets of suit because the legislature has statutorily deferred unresolved policy clashes to the executive branch—presumably because executive actors will be better positioned to resolve them in distinctive regional fisheries, and in consultation with relevant local stakeholders. When this litigation does arise, public choice theory helps explain why professional fishers routinely outpace environmentalists to the courtroom, even though long-term conservation interests are often more imperiled than the short-term economic interests usually championed by industry participants.

Despite these predictable problems, I conclude that administrative fisheries management is probably still our best bet, even if certain aspects of the FCMA could bear improvement, including improved stakeholder representation for conservation interests. Indeed, Craig and Danley's research reveals changing litigation trends after the Sustainable Fisheries Act of 1996 and the Magnuson-Stevens Reauthorization Act of 2006 that demonstrate the dynamic interplay between all three branches of government in fisheries management. Hopefully, this pattern of engagement will remain vital in fisheries management—and ideally, wider environmental law—appropriately erring on the side of administrative process while maintaining a healthy horizontal balance of power.

Robert L. Glicksman & Emily Hammond, *Agency Behavior and Discretion on Remand*, 32 J. LAND USE & ENVTL. L. 483 (2017).

Despite the prevailing focus of administrative law on judicial review of agency discretion, scholars are increasingly asking what we can

learn about agency discretion in the absence of judicial review. Indeed, such work prompts a reexamination of administrative law and our assumptions about agencies' legitimacy. When a court invalidates an agency action, the agency's response on remand is often left open to the agency's discretion. Agencies frequently have significant latitude in whether, how, and when (if ever) to remedy the initial flaw.

What is the extent of agency discretion following a remand, and how do agencies use that discretion? In this Essay, we sketch the interplay of four variables to form some preliminary hypotheses and lay a foundation for future empirical work. These variables are the nature of the judicial remedy that accompanies the remand, the timing of the required agency response, the valence of the agency action (its alignment with the interests of the group winning the remand and with the then-current presidential administration), and the timing of the presidential administration, paying particular attention to changes that occur or are anticipated to occur during the agency's formulation of a response on remand.

We suspect that, barring a specific and enforceable judicial directive, agencies have almost as much discretion as they would in the first instance, when deciding whether and how to respond to a judicial remand. We also suggest that whether agencies act with haste or stall is at least somewhat dependent on the alignment of the agency's policy position with the incumbent President and any anticipated uncertainty regarding a future President. The vigilance of the original litigants, budgetary constraints, newly created statutory deadlines, and other factors also will influence what happens on remand. But we hope that this initial exploration will yield a useful set of testable hypotheses that can inform more detailed future work.

Christopher J. Walker, *Lawmaking Within Federal Agencies and Without Judicial Review*, 32 J. LAND USE & ENVTL. L. 551 (2017).

As part of the Florida State University College of Law's Environmental Law Without Courts Conference, this Essay examines two ways administrative law operates with little, if any, judicial oversight: Federal agencies play a substantial role in drafting the legislation that empowers them to regulate, and agencies then typically have broad discretion within that congressionally delegated authority to choose how to regulate. The former legislative-drafting activity fully escapes judicial review, and the agency choices made in the latter rulemaking activity are

usually only reviewed by courts for reasonableness. In other words, a vast amount of agency lawmaking escapes judicial review, which suggests that it is all the more important to understand the key players within the agency that engage in these legislative and regulatory activities.

Part I of this Essay briefly outlines these two types of agency lawmaking activity and how they are insulated from judicial review. Part II explores how agency design may matter in both lawmaking activities — with a particular emphasis on the agency general counsel office — by discussing the various agency organizational models identified in the author’s prior study for the Administrative Conference of the United States. In particular, the combined legislation and regulation legal office has the virtue of ensuring that those agency lawyers who help draft the legislation can fully leverage the agency’s experience and expertise in implementing the legislation, and vice versa. This Part also flags a number of best practices for agency general counsel offices to consider short of consolidating legislative and regulatory counsel in one office. This Essay is by no means a comprehensive take on how agency design choices can affect agency lawmaking. Instead, the objective here is to call attention to the topic and sketch out potential avenues for further research and discussion. Such further exploration is particularly important with respect to agency lawmaking that is insulated from judicial review.

Mark Seidenfeld, *The Long Shadow of Judicial Review*, 32 J. LAND USE & ENVTL. L. 579 (2017).

This comment posits that judicial review casts a shadow over all that administrative agencies do, even while admitting, at least for the sake of argument, that such review does not apply to various agency activities, some of which are identified by the principal papers in the Land Use and Environmental Law Journal symposium: “Environmental Law Without Courts.” The aspects of the shadow of judicial review that this paper explicitly discusses, but which do not exhaust the totality of that shadow, involve three different effects of such review. First, even if agencies are free from meaningful review in choice of procedures beyond those specified by statute or required by the Constitution, this comment contends that substantive review over the ultimate agency action can significantly impact the agency choice of procedure to increase agency accountability for such choice. Second, in those cases where courts have remanded an agency action while failing to provide any explicit instruction whether the

agency should continue to pursue the action, the threat of further substantive review is one of the most important factors in the agency decision whether to do so. Finally, even for an action clearly not subject to any direct judicial review—in particular, agency participation in drafting statutes authorizing or defining the scope of agency action—judicial review affects the administrative-legislative interaction by influencing the way that agencies staff their regulatory teams. The thesis of this comment is thus broad but easy to state: judicial review of agency action casts a long shadow over all that agencies do, and one cannot meaningfully talk of Environmental Law (or any regulatory law) in the absence of courts.